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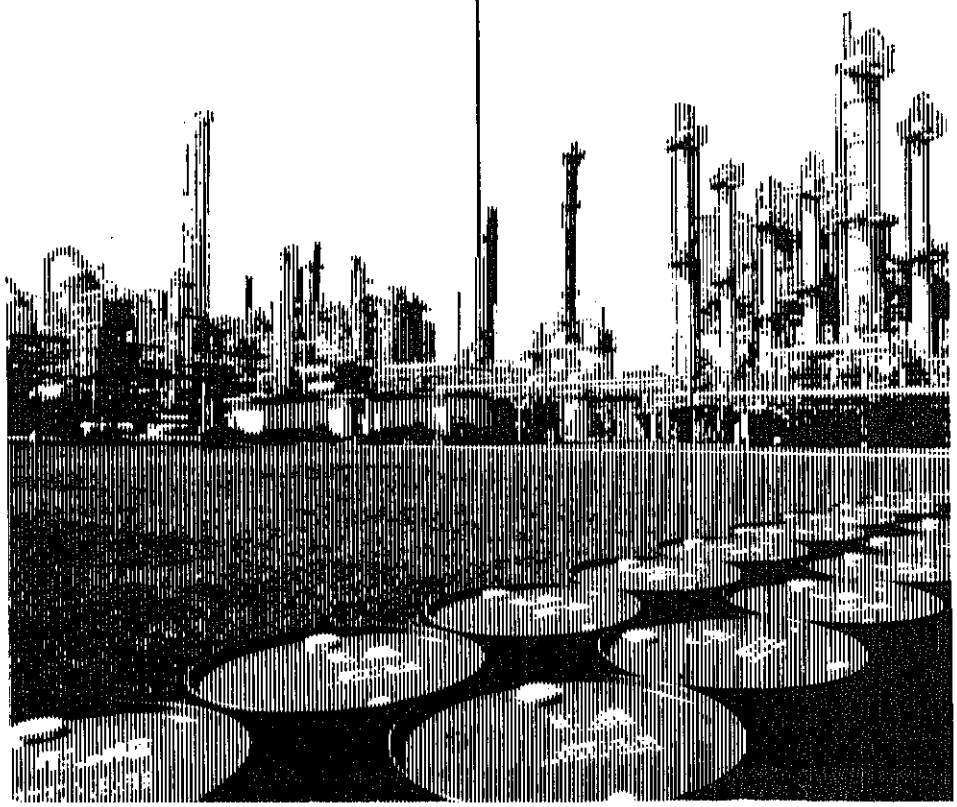
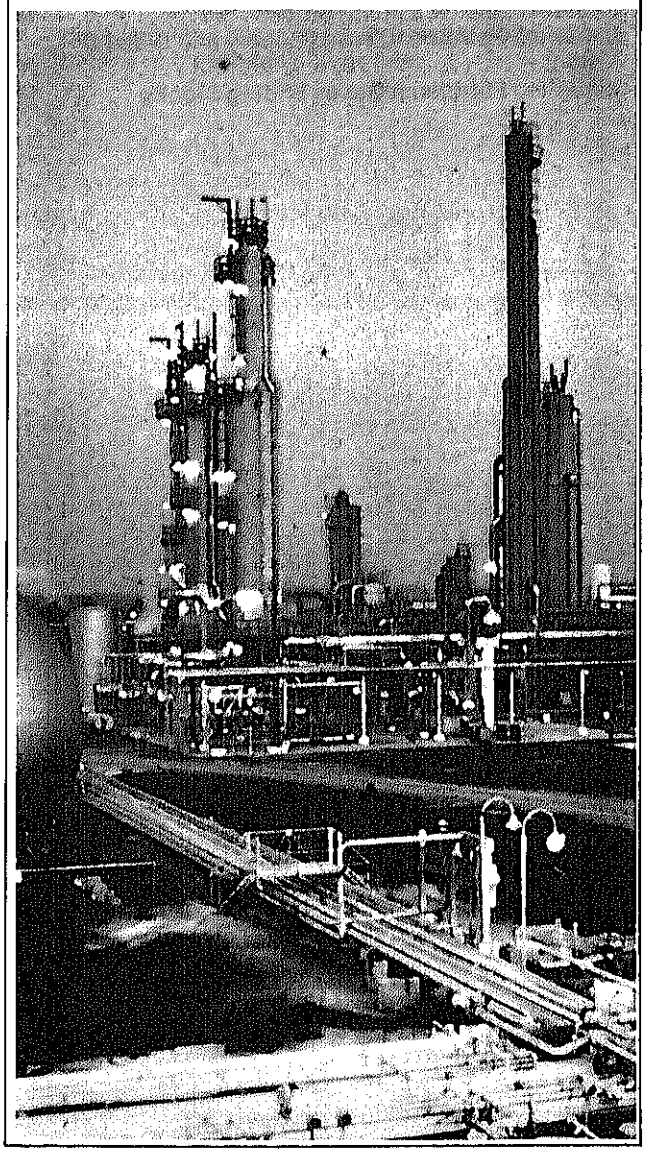


Contents

This Month in the PSM

This issue of the *Petroleum Supply Monthly* reflects changes in the Petroleum Supply Reporting System that became effective January 1984. Resultant changes to tables published herein are described on page v. "EIA Revises Petroleum Supply Reporting System," an article elaborating on changes to the reporting system, begins on page vii. Also, this month's Petroleum Focus section features two articles relating to petroleum consumption: "Trends in Petroleum Product Consumption," beginning on page xiii, and "Petroleum Consumption in the Industrial Sector," beginning on page xxi.



Contents (Continued)

Introduction

Changes in the Petroleum Supply Monthly

Beginning with this issue, the Petroleum Supply Monthly (PSM) has been changed to incorporate revisions to the survey data collected for this report. The data collection forms which make up the Monthly Petroleum Supply Reporting System (MPSRS) were revised to improve data accuracy and utility to data users and to reduce respondent burden.

The detailed tables have been simplified, due to the reduction in the product detail collected. The following are the most significant changes to the tables:

- Ethane-propane mixtures have been eliminated as a line item from all tables. Ethane-propane mixtures are now included with the individual ethane and propane categories.
- Butane-propane mixtures have been eliminated as a line item from all tables. Butane-propane mixtures are now included with the individual normal butane and propane categories.
- Unfractionated streams have been eliminated as a line item from all tables. Unfractionated streams are now included with the individual ethane, propane, normal butane, isobutane, and pentanes plus categories.
- Natural gasoline, isopentane, and plant condensate have been eliminated as line items from all tables. Natural gasoline, isopentane, and plant condensate are now combined in the pentanes plus category.
- The product category butane has been renamed normal butane.
- An algorithm is used to allocate mixtures of liquefied petroleum gases import and export data into the new component basis.

In addition to the changes in the tables listed above, the Explanatory Notes and Glossary have been revised to reflect the January 1984 changes to the Monthly Petroleum Supply Reporting System.

EIA Revises Petroleum Supply Reporting System

Beginning in January 1984, a number of changes were implemented in the Energy Information Administration's (EIA) Petroleum Supply Reporting System (PSRS). These changes affect reporting of natural gas liquids (NGL's). The modified system reflects supply and disposition of NGL on a component, rather than product, basis. Under the modified system, data accuracy and utility to data users will be improved, while respondent burden will be reduced. Four monthly survey forms have been revised and corresponding changes have been made to the tables published in the Petroleum Supply Monthly (PSM). This article summarizes the changes that were made and describes their impact.

EIA Review of the Petroleum Supply Reporting System

In June 1982, the EIA conducted public hearings on proposed changes to its PSRS. Comments made by participants in the hearings triggered a detailed study of NGL reporting procedures.

The NGL study commenced in October 1982 and was scheduled for completion in June 1983 to permit implementation of recommendations in January 1984. The study concentrated on defining user requirements, examining respondent burden, and identifying deficiencies in existing reporting. Options for improving reporting were formulated and recommendations were made. These options and recommendations were reviewed by government, industry and the public. There was universal agreement among information users, survey respondents and data processors that a component based system was preferred.

Changes in Data Collection and Reporting

The PSRS consists of one annual, eight monthly, and six weekly EIA surveys which collect information on domestic production, inventories, imports and movements of petroleum. Data from these surveys are supplemented by the Census Bureau's IM-145 tabulation which provides additional information on imports of liquefied petroleum gases (LPG), and EM-522 tabulation which provides information on petroleum exports. Four PSRS surveys have been modified beginning in January 1984.

Surveys affected by NGL reporting changes

EIA-810 Monthly Refinery Report
EIA-811 Monthly Bulk Terminal Report
EIA-812 Monthly Product Pipeline Report
EIA-816 Monthly Natural Gas Liquids Report

A fifth survey, the Form EIA-814, "Monthly Imports Report" (formerly Form ERA-60) was not modified. Temporarily, statistical adjustments will be applied to LPG imports data to make them consistent with the revised reporting system (See Explanatory Note 13).

From 1979 to 1983, the EIA collected and reported information on the supply and disposition of nine (9) NGL products (See Table 1). This slate of products presented survey respondents with categories for reporting which resulted in misclassifications, double-counting, and inconsistencies, particularly in the case of mixed product streams. Careful examination revealed that published figures for individual products were overstated by as much as 10 percent and that there was a discrepancy of up to 20 percent between aggregate LPG supply data and aggregate LPG sales data.

Table 1. Product Basis vs. Component Basis Reporting

	1984 Component Basis				
1979-1983 Product Basis	1. Ethane	2. Propane	3. Normal Butane	4. Isobutane	5. Pentanes Plus
1. Ethane	●				
2. Ethane-Propane Mixtures	●	●			
3. Propane		●			
4. Butane-Propane Mixtures		●	●		
5. Butane			●		
6. Isobutane				●	
7. Unfractionated Stream	●	●	●	●	●
8. Natural Gasoline and Isopentane					●
9. Plant Condensate					●

Beginning with January 1984, NGL supply and disposition will be reported on a five (5) component basis (See Table 1) consistent with recordkeeping practices used by industry. Prices of products sold by NGL suppliers are usually determined by the value of their chemical components. Most suppliers, therefore, analyze their products to determine their composition and maintain their records on a component basis.

Table 1 depicts the changes in the reporting system. All volumes of NGL's previously reported in 9 categories will now be reported in 5 categories:

- Ethane will include straight ethane streams plus the amounts of ethane included in E/P mix, and unfractionated stream.

- Propane will include commercial grade propane and HD5 propane plus the amounts of propane included in E/P mix, B/P mix, and unfractionated stream.

- Normal Butane will include straight butane streams plus the amounts of butane in B/P mix and unfractionated stream.

- Isobutane will include straight isobutane streams plus the amount of isobutane included in unfractionated stream.

- Pentanes Plus will include products previously reported as natural gasoline, isopentane and plant condensate plus the amounts of these products in unfractionated stream.

Surveys which provide data on NGL imports and exports have not been modified to conform with this new component basis. The Form EIA-814, "Monthly Imports Report" is identical to its predecessor, Form ERA-60. Similarly, the NGL product slates on the Census Import Tabulation IM-145, and the Census Export Tabulation IM-522 are unchanged. To integrate import and export data in the PSM on a component basis, a series of algorithms have been developed to split mixes and unfractionated stream into their components. These algorithms are described in Explanatory Note 13 at the back of this publication.

Data Continuity

The predominant changes expected in the NGL data series, which can be attributed to reporting on a component basis, are found in production and stocks (See Table 2). The largest production increases are in ethane and propane. The increases are the result of splitting ethane-propane mixtures (E/P mix) and butane-propane mixtures (B/P mix) into their individual components. Likewise, the greatest stock increases are in ethane and propane. These increases are also the result of splitting E/P and B/P mixtures as well as unfractionated stream into their individual components. The splitting of unfractionated stream also results in an increase in total LPG stocks.

- Production - On the new basis, December 1983 production of ethane and propane is higher by 189 and 65 thousand barrels per day , respectively, than on the old basis.

- Stocks - On the new basis, December 1983 stocks of ethane and propane are higher by 14 and 7 million barrels, respectively, than on the old basis. Total stocks of LPG are higher by approximately 7 million barrels.

- Small changes of a similar nature also occurred in stocks of normal butane and isobutane, and imports of isobutane.

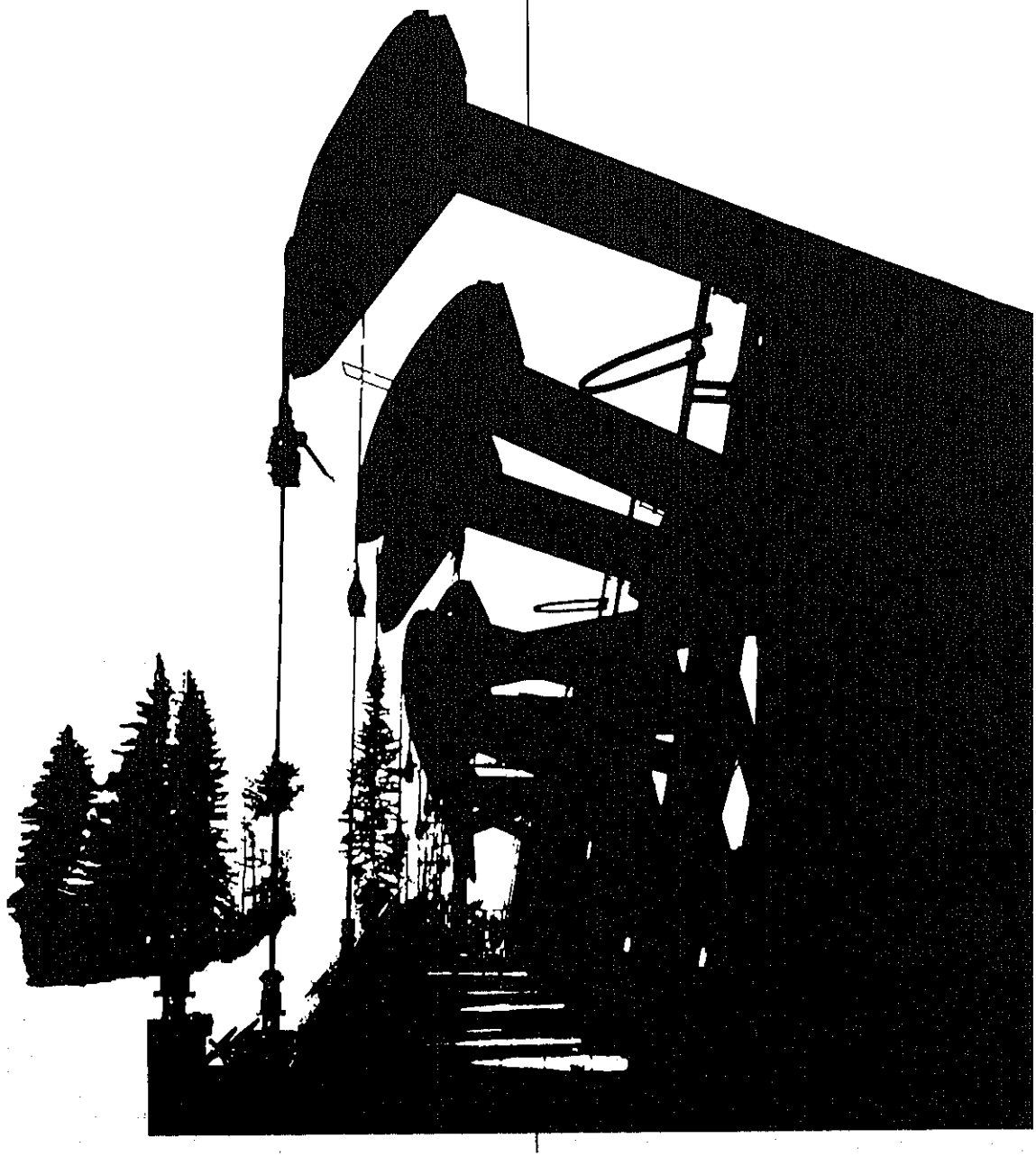
- There is no change in the definition or measurement of Total Natural Gas Liquids.

Table 2. Production and Stocks of NGL's , December 1983

	Production (MB/D)		Stocks (MB)	
	Old Basis	New Basis (estimated)	Old Basis	New Basis
Natural Gasoline and Isopentane	181	NA	6,306	NA
Plant Condensate	30	NA	591	NA
Unfractionated Stream	–34	NA	9,062	NA
Pentanes Plus	NA	177	NA	8,765
Liquefied Petroleum Gases	1,645	1,645	100,563	107,757
Ethane	301	490	7,433	21,379
Propane	743	808	48,194	55,280
Normal Butane	NA	245	NA	20,389
Butane	244	NA	18,443	NA
Isobutane	101	102	9,716	10,709
Butane-Propane Mix	4	NA	1,624	NA
Ethane-Propane Mix	252	NA	15,153	NA
Total Natural Gas Liquids	1,822	1,822	116,522	116,522

NA = Not Applicable

Petroleum Focus



Petroleum Supply Summary

ge Volume for Period ın Barrels Per Day)	February			Cumulative January Through February		
	1984	1983	% Change	1984	1983	% Change
cts Supplied						
ɔtor Gasoline	6.1	6.0	1.5	6.2	6.0	3.2
stillate Fuel Oil	2.8	2.8	– 1.6	3.2	2.8	12.7
ısidual Fuel Oil	1.5	1.6	– 3.0	1.8	1.6	11.9
her Products	5.0	4.4	14.1	5.0	4.4	13.0
Total	15.4	14.8	4.2	16.1	14.8	8.9
Inputs to Refineries	12.1	10.6	13.9	11.8	10.9	9.0
ction						
ude Oil, Natural Gas ıuids, and Other[1]	10.3	10.3	0.5	10.3	10.3	– 0.1
ts						
ude Oil[2]	2.9	2.1	41.5	2.9	2.4	19.3
PR	0.1	0.2	– 55.8	0.1	0.2	– 30.3
oducts	2.3	1.4	58.7	2.3	1.4	60.2
Total	5.3	3.7	42.9	5.3	4.0	31.2
ts						
ude Oil	0.2	0.3	– 41.6	0.2	0.2	– 17.7
oducts	0.4	0.6	– 30.0	0.4	0.7	– 42.7
Total	0.6	0.9	– 33.5	0.6	0.9	– 37.6
Withdrawal						
ude Oil[2]	0.1	– 0.2	—	(s)	– 0.3	—
oducts	– 0.7	1.1	—	0.2	1.0	—
s at End of Period ın Barrels)						
Oil						
PR	387	306	26.5			
her	340	366	– 7.2			
Total	727	672	8.1			
cts						
ɔtor Gasoline[3]	233	251	– 7.2			
stillate Fuel Oil	130	147	– 11.6			
ısidual Fuel Oil	52	53	– 1.9			
her	300	308	– 2.6			
Total	716	760	– 5.8			
Crude Oil and Products	1,442	1,432	0.7			

ludes alcohol and other hydrocarbon liquids.
ıludes Strategic Petroleum Reserve (SPR).
luding blending components.
Less than 0.05 million barrels per day.
: Percent changes are based on unrounded values. February 1984 data are estimates based on weekly data, ex-
or exports, NGL production, other hydrocarbons, and alcohol which are January 1984 monthly values. Totals
ıot be equal to sum of components due to independent rounding.
ıe: Energy Information Administration, Petroleum Supply Monthly, January 1984.

Trends In Petroleum Product Consumption

Decline in Petroleum Product Consumption Slows

Petroleum product consumption last year (measured as products supplied for domestic use) was the lowest since 1970—15.2 million barrels per day. This was 19 percent below the 1978 peak of 18.8 million barrels per day and continued a 5-year decline—the longest downward trend on record. Petroleum's share of total primary energy consumption decreased as well, from its peak of 49 percent in 1978 to 43 percent in 1983.

Following the Iranian Revolution, petroleum prices increased rapidly between 1979 and 1981. Together with sluggish economic conditions and other factors, this provided increased incentive for fuel switching, conservation, and fuel efficiency improvements through 1982. However, as the pace of economic activity picked up last year and petroleum prices subsided, the decline in petroleum product consumption slowed to about one-sixth of the average annual rate of decline observed since 1979.

As petroleum product consumption declined, consumption patterns for major products shifted. Shifts also occurred in consumption by various end-use sectors; e.g., the transportation sector's share of the petroleum market increased relative to consumption in other sectors.

This article highlights consumption trends for the major petroleum products (motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and jet fuel). It also discusses shifting consumption patterns within end-use sectors.

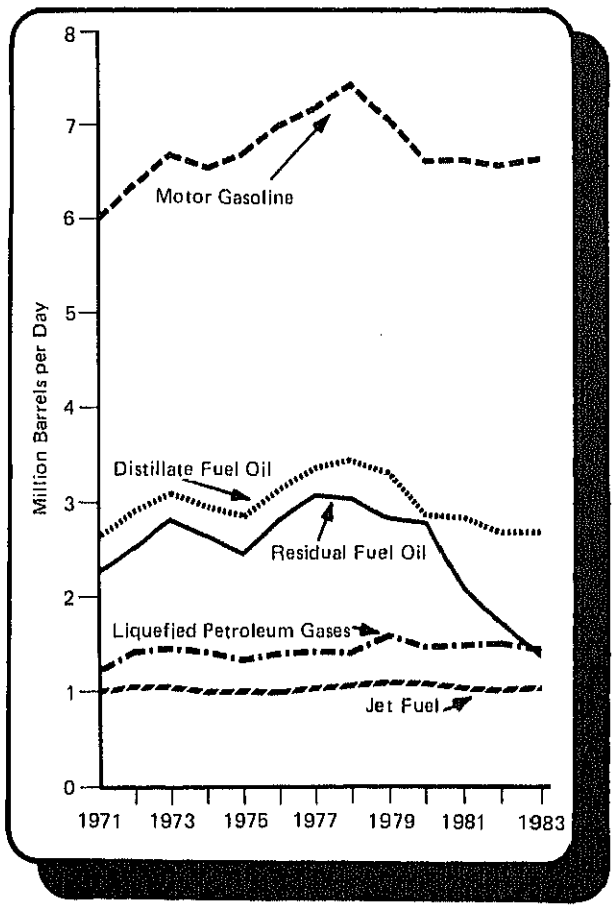
Note: The consumption data in this article are based on the State Energy Data System (SEDS), an EIA system that generates annual estimates of energy consumption by State and major end-use sectors. In the SEDS, State consumption of petroleum products is calculated by disaggregating national values using State sales or deliveries data. Complete documentation of the SEDS data sources and methodology is found in the EIA publication, *State Energy Data Report*, 1960 through 1981, DOE/EIA-0214(81), June 1983. This SEDS report is the source of consumption data presented in this article for the years 1971 through 1981, except where otherwise noted. The end-use sector consumption estimates for 1982 follow the latest SEDS methodology, but use 1982 source data. Petroleum product consumption for 1983 is drawn from the product supplied information in the *Petroleum Supply Monthly*. Unless otherwise noted, price and 1983 end-use data were based on the *Monthly Energy Review*, DOE-EIA-0035 (83/12[3]), December 1983[3]. Where final data were not available, estimates were based on preliminary data. References to consumption patterns for years prior to 1960 were from the U.S. Department of the Interior, Mineral Industry Surveys, *Petroleum Statement, Annual* and predecessor reports.

Major Product Consumption Trends

In 1983, consumption of the five major petroleum products (motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and jet fuel) totaled 13.2 million barrels per day, 19 percent below the 1978 peak of 16.3 million barrels per day. Consumption of these five products dropped 2 percent between 1982 and 1983. This was about a third of the annual average rate of decline during the previous 4 years. Residual fuel oil was the only major product to show a significant decline from its 1982 level, while the other major products showed little change.

Motor gasoline consumption increased slightly and distillate fuel oil consumption remained steady in 1983. Consumption patterns for these two products have been relatively flat since 1980, at approximately the same levels as in the early 1970's. Residual fuel oil consumption continued to decline sharply last year from its 1977 peak, while liquefied petroleum gases and jet fuel remained relatively constant (see Figure 1). The

Figure 1. Consumption of Major Petroleum Products



Source: Energy Information Administration, State Energy Data System (1971-82), "Petroleum Supply Monthly" (1983).

consumption patterns for each of these major products and the events that influenced them are analyzed in this section.

Motor Gasoline

The third major decline in gasoline consumption in history began in 1979 following the Iranian Revolution. Only twice before—during World War II, and immediately after the 1973 Arab Oil Embargo had motor gasoline consumption taken a sharp downturn.

After peaking in 1978, motor gasoline consumption declined rapidly through 1980, then flattened out through 1983 at approximately the 1974 level (refer to Figure 1). Consumption of motor gasoline in 1983 was 6.6 million barrels per day, 1 percent higher than in 1982, but still well below the 1978 peak of 7.4 million barrels per day.

Iranian Revolution

Supply disruptions following the Iranian Revolution resulted in long lines at gas stations, and rapid price increases that served to immediately reduce discretionary driving. By 1980 average gasoline prices of $1.22 per gallon were almost double their 1978 level of $.65. At the same time, average miles traveled per passenger car showed a 9 percent reduction from the 1978 peak of 10,046.[1] As a result, motor gasoline consumption fell 11 percent between 1978 and 1980.

Economic Conditions

The economic recession of 1981-82 contributed to declines in other major petroleum products during this period, but apparently had little effect on motor gasoline consumption trends. The average miles traveled per vehicle increased slightly in both 1981 and 1982 despite the recession, indicating that discretionary driving was increasing. Part of the increase is attributed to moderating gasoline prices in late 1981 and 1982.

Despite increased driving, motor gasoline consumption remained stable. Continuing increases in automotive fuel efficiency and diesel use compensated for extra miles driven and held down gasoline consumption. As a result, consumption decreased about 1 percent between 1980 and 1982. In 1983, economic conditions improved and gasoline prices stabilized at their present levels of about $1.22 per gallon, further stimulating gasoline usage. Automotive fuel efficiency improvements and diesel conversions continued to hold down consumption increases, however.

Automotive Efficiency

Automotive fuel efficiency improvements were a major factor in the decline of motor gasoline consumption between 1979 and 1982. About 98 percent of the motor gasoline supplied in the United States is consumed in highway vehicle use, and about 70 percent of this is used in automobiles. The Federal Government's establishment in 1975 of the Corporate Average Fuel Economy (CAFE) Standards imposed fuel efficiency goals for new cars of 27.5 miles per gallon to be met by 1985. The effects of auto engineering and design changes sparked by the CAFE standards were apparent by 1979, when the average miles per gallon for all cars (including those manufactured before introduction of the CAFE standards) showed a 4 percent improvement over 1976 averages. By 1982, automobile turnovers had improved this average an additional 14 percent, as newer, more efficient cars replaced older, less efficient ones. This trend continued in 1983.

Fuel efficiency improvements during this period were largely due to increased sales of smaller cars. By 1979 sales of these cars showed major increases over 1978 levels, although total auto sales had begun a 4-year decline. By 1981 small cars accounted for 38 percent of U.S. auto sales compared with 31 percent in 1978. Lower motor gasoline prices during the past 2 years, and the improved economic conditions last year led to a reduction in the percent of small car sales in 1982 and 1983.[2] Even though small cars represented only 33 percent of total auto sales last year, their positive impact on the fuel efficiency of the auto fleet was a major factor in tempering the rise in motor gasoline consumption in 1983.

Diesel Usage

Diesel penetration of the auto market modified the consumption patterns of motor gasoline as well. In 1979, the diesel market was growing rapidly and represented about 3 percent of U.S. auto sales. For many car buyers, the cost advantage of diesel fuel, added to the relative durability and efficiency of diesel engines, translated into an economical solution to the gasoline shortage. In 1981 record sales of diesel-powered autos accounted for 6 percent of all auto sales. By 1982, however, motor gasoline was more plentiful and prices were lower than in 1981. Also, consumer disenchantment with the general inconvenience of diesel-powered autos influenced lower sales in 1982 and 1983.[3] As gasoline prices fell, average miles traveled per vehicle increased and in 1983 approached 1978's record level.[4] Despite this increase, motor gasoline consumption last year was 11 percent lower than in 1978, partly because of the higher number of diesel autos in the fleet.

Distillate Fuel Oil

Distillate fuel oil consumption in 1983 was 2.7 million barrels per day, virtually unchanged from the 1982 consumption, but well below the 1978 peak of 3.4 million barrels per day. Although total distillate fuel oil consumption has been close to the 1971 level for the past 2 years (refer to Figure 1), its consumption patterns changed dramatically. Transportation use grew from 30 percent of distillate fuel oil consumption in 1971, to 49 percent in 1982, while the portion of consumption for heat and power dropped from 70 percent to 51 perent during the same period.

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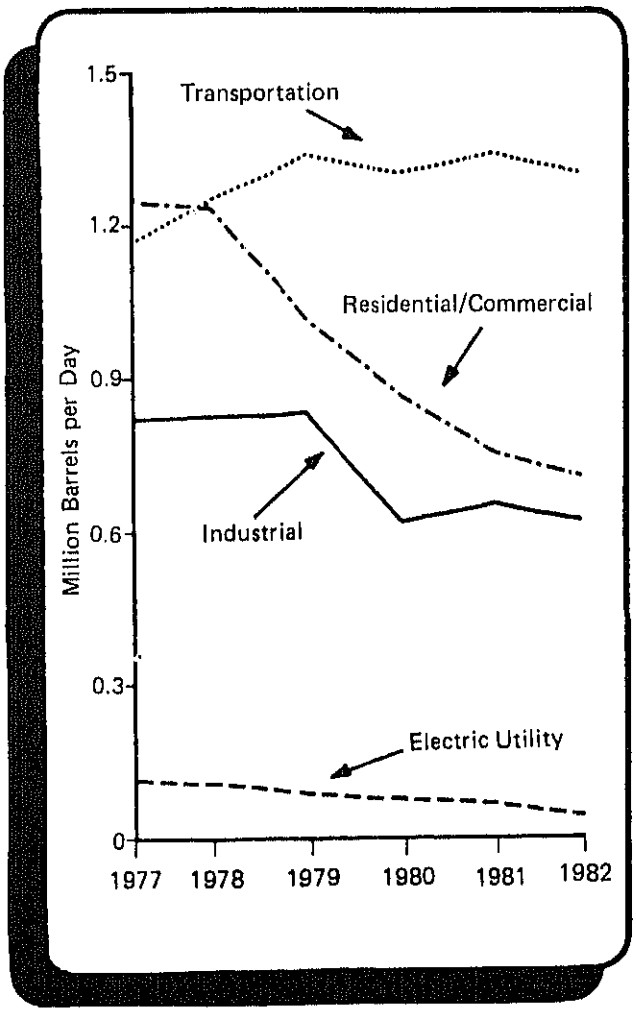
[1]U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, 1979, 1980, 1981, 1982, Table VM-1.
[2]Ward's Communications, Inc., *Ward's Automotive Reports*, January 8, 1979, January 12, 1981, and January 10, 1983, Inserts; and January 9, 1984, p. 11.
[3]Ward's Communications, Inc., *Ward's Automotive Reports*, January 19, 1981, p. 17; January 17, 1983, p. 21; and January 16, 1984, p. 19.
[4]Estimates based on data from U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends*, December 1983, Table 4 and *Selected Highway Statistics and Charts 1982*, pp. 2-3.

Between 1979 and 1982, rapid petroleum price increases and sluggish economic conditions led to increased conservation, fuel switching, and development of more efficient fuel-burning equipment in the residential/commercial, industrial, and electric utility sectors. These factors caused consumption of distillate fuel oil for heat and power to decline 37 percent by 1982 from its 1977 peak, despite colder than normal weather during most of this period.[5,6] During the same period, diesel conversion of the vehicle fleet helped to keep transportation use of distillate fuel oil near the 1979 peak level.

Use of distillate fuel oil (diesel fuel) for transportation increased between 1976 and 1979 and has remained near the 1979 level since. By 1979, distillate fuel oil use was declining in most sectors of the economy (see Figure 2). Transportation use was at its peak, however, and represented 41 percent of consumption. Although distillate fuel oil consumption in the transportation sector dropped about 4 percent between 1979 and 1982, that sector increased its share of total distillate fuel oil consumption to 49 percent by 1982.

Figure 2. Distillate Fuel Oil Consumption, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

Approximately 70 percent of the distillate fuel oil consumed in the transportation sector is for highway use. About 20 percent is used by railroads, and the remainder is used for vessel bunkering and military operations. The increase of diesel-powered highway vehicles contributed to the stable distillate fuel oil consumption pattern between 1979 and 1982, even though railroad, vessel bunkering, and military uses were generally declining during this period in association with the sluggish economy. In 1983, transportation use of distillate fuel oil increased moderately as truck, rail, and auto traffic increased[7,8] in association with improved economic conditions.

Figure 2 shows that the recent downward trend in distillate fuel oil consumption followed a unique pattern for each of the nontransportation sectors (residential/commercial, industrial, and electric utility). In the residential/commercial sector, where distillate fuel oil is the leading petroleum product used, consumption dropped sharply between 1978 and 1981, then continued dropping at a slower rate in 1982. This decline is attributed to immediate conservation efforts in reaction to the 1979 price escalation, combined with price-induced fuel switching to natural gas and wood.[9] In the industrial sector, price and economic conditions influenced distillate fuel oil use. The 1979 petroleum price escalation led to conservation and switching to natural gas. At the same time, the sluggish economy caused lower industrial output and led to the development of more efficient equipment to reduce operating costs. Improved economic conditions last year brought about increased industrial activity, but continued upgrading of equipment served to keep industrial consumption of distillate fuel oil flat in 1983. Electric utility use of distillate fuel oil decreased steadily from 1978 to 1982, as utilities replaced distillate fuel oil with less expensive alternate fuels. Consumption at utilities in 1983 increased moderately from the 1982 level[10] in association with colder weather toward the end of the year.

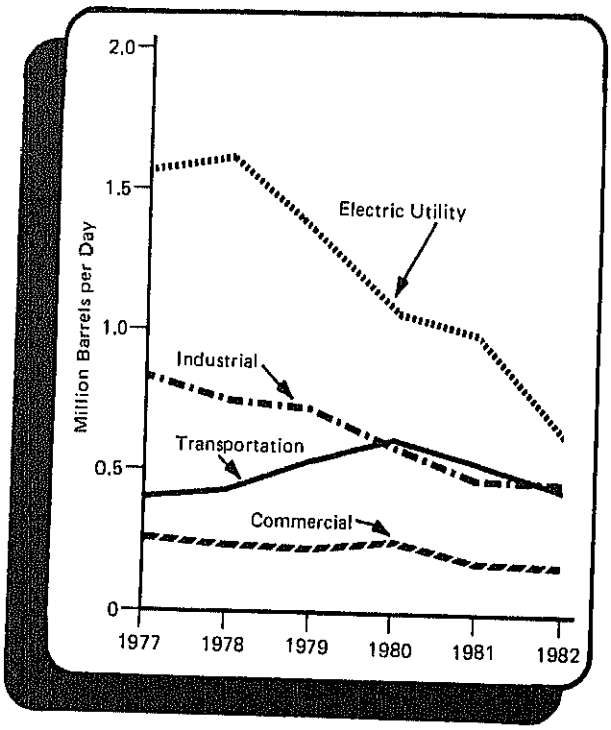
Residual Fuel Oil

Residual fuel oil consumption in 1983 was 1.4 million barrels per day, 18 percent below 1982 levels. This was the lowest consumption since 1949, when railroads still used significant amounts of residual fuel oil and electric utilities were not yet the principal consumers of the product.

Between 1977 and 1982 the consumption patterns of residual fuel oil changed dramatically (see Figure 3). By 1982 residual fuel oil consumption had dropped 44 percent from its 1977 peak. Electric utility use showed the

[5]Energy Information Administration, *Residential Energy Consumption Survey, Consumption and Expenditures, April 1981 through March 1982*, DOE/EIA-0321 (1/81), September 1983, p. 3.
[6]Energy Information Administration, *Weekly Petroleum Status Report, December 30, 1983*, DOE/EIA-0208 (83/52) (84/01), January 6, 1984, p. 22.
[7]U.S. Department of Transportation, Federal Highway Administration, *Selected Highway Statistics and Charts 1982*, p. 4, and *Traffic Volume Trends*, December 1983, Table 4.
[8]*LP-Gas*, November 1983, p. 10.
[9]Energy Information Administration, *Residential Energy Consumption Survey, Housing Characteristics 1981*, DOE/EIA-0314 (81), August 1983, p. 4.
[10]Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/12), March 1984, Table 12.

Figure 3. Residual Fuel Oil Consumption, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

most drastic decline during this period, primarily due to the 150 percent rise in residual fuel oil prices between 1978 and 1981. This made it much more economical for utilities to replace residual fuel oil with natural gas and coal. The annual average rate of decline in residual fuel oil use at utilities from 1979 to 1982 ranged between 16 percent and 29 percent, while natural gas and coal use either increased or declined slightly each year. Industrial use of residual fuel oil declined each year after 1977, but most of the decline occurred between 1979 and 1981, associated with conservation, price-induced fuel switching and the economic recession. Commercial use was also affected by these factors, but in contrast to the other sectors, it remained fairly stable.

Transportation use of residual fuel oil was on an upward trend between 1975 and 1980. Price controls in effect through most of 1980 in the United States held high-sulfur residual fuel oil prices below those at foreign ports. This made it advantageous for foreign trade vessel operators to purchase their bunker fuel in the United States. By 1981 high-sulfur residual fuel oil prices became comparable to foreign prices[11] and world demand for petroleum, the major commodity shipped, was decreasing.[12] These factors caused transportation use to decline each year from 1981 through 1983.

Consumption of residual fuel oil at utilities in 1983 continued to decline, but at a slower rate than during the previous four years. Of the fossil fuels, residual fuel oil and natural gas continued to provide smaller amounts of fuel for electricity generation in 1983, while coal consumption increased.[13]

The low cost of residual fuel oil relative to that of distillate fuel oil led to the development during 1983 of a distillate/residual fuel mix at a ratio of 9 to 1, with possibilities of a 7 to 3 ratio, which may in the near future replace the more expensive diesel fuel while maintaining diesel engine efficiency for industrial and marine uses.[14]

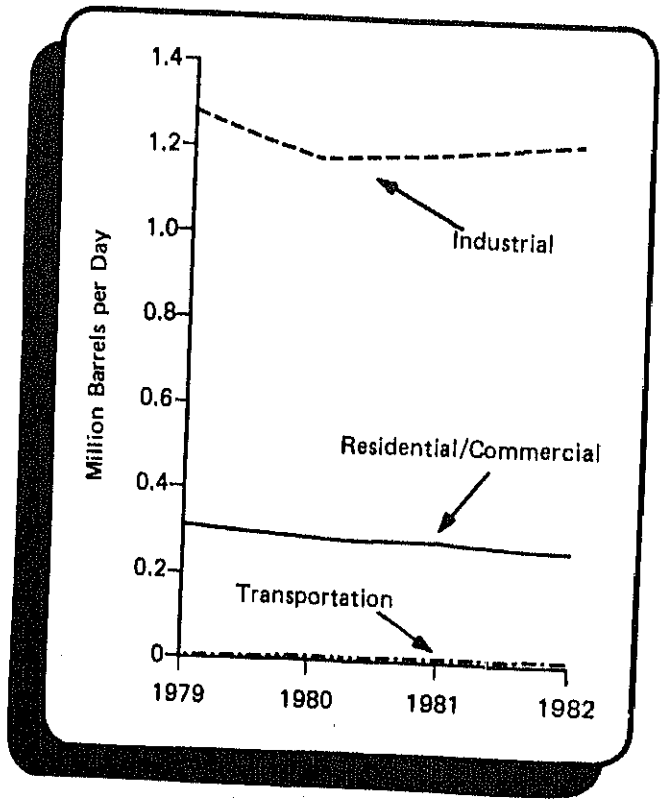
Liquefied Petroleum Gases

Liquefied petroleum gases (LPG's) have become increasingly important since 1971 (refer to Figure 1), primarily as feedstocks in the chemical industry. LPG's are also used as blending components for gasoline at refineries, for heat and power in the residential/commercial and industrial sectors, and as relatively pollution-free transportation fuel.

Industrial and residential/commercial use of LPG's declined after 1979 in response to the sudden price increases (see Figure 4). Industrial use recovered somewhat in 1982. LPG consumption in the transportation

[11] *Platt's Oil Price Handbook and Oilmanac*, 54th Edition, pp. 49, 405; 55th Edition, p. 390; 56th Edition, p. 371; 57th Edition, p. 349; 58th Edition, p. 325; 59th Edition, pp. 94, 95, 99, 102, 301.
[12] Energy Information Administration, *International Energy Annual*, 1979, 1980, 1981, and 1982, DOE/EIA-0219, Table 14.
[13] Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/1, 83/2, 83/3, 83/4), Table 1.
[14] *Oil and Gas Journal*, December 12, 1983, pages 116–120; December 19, 1983, pp. 75–76.

Figure 4. Liquefied Petroleum Gases Consumption, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

sector doubled between 1979 and 1982, as fleet vehicles were converted from motor gasoline to propane. LPG consumption remains an insignificant portion of the transportation market, however.

During 1983, an unusual fluctuation in the world LPG market caused prices to increase and depressed domestic consumption for about four months. As a result, in 1983 consumption of LPG's was 1.5 million barrels per day, essentially unchanged from 1982 levels, but 6 percent below the 1979 peak of 1.6 million barrels per day.

Jet Fuel

Jet fuel consumption has remained between 1.0 and 1.1 million barrels per day since 1969. Within this narrow range of consumption, jet fuel peaked in 1979, then declined 6 percent by 1981, and has remained near 1.0 million barrels per day since.

Approximately 80 percent of all jet fuel is consumed by the airline industry, and 20 percent is used in military operations. Between 1979 and 1982, airlines' consumption of jet fuel dropped slightly as three events affected air travel. These were the doubling of jet fuel prices between 1979 and 1981, the 1981 Air Traffic Controllers' strike, and the economic recession which spanned 1981 and 1982.

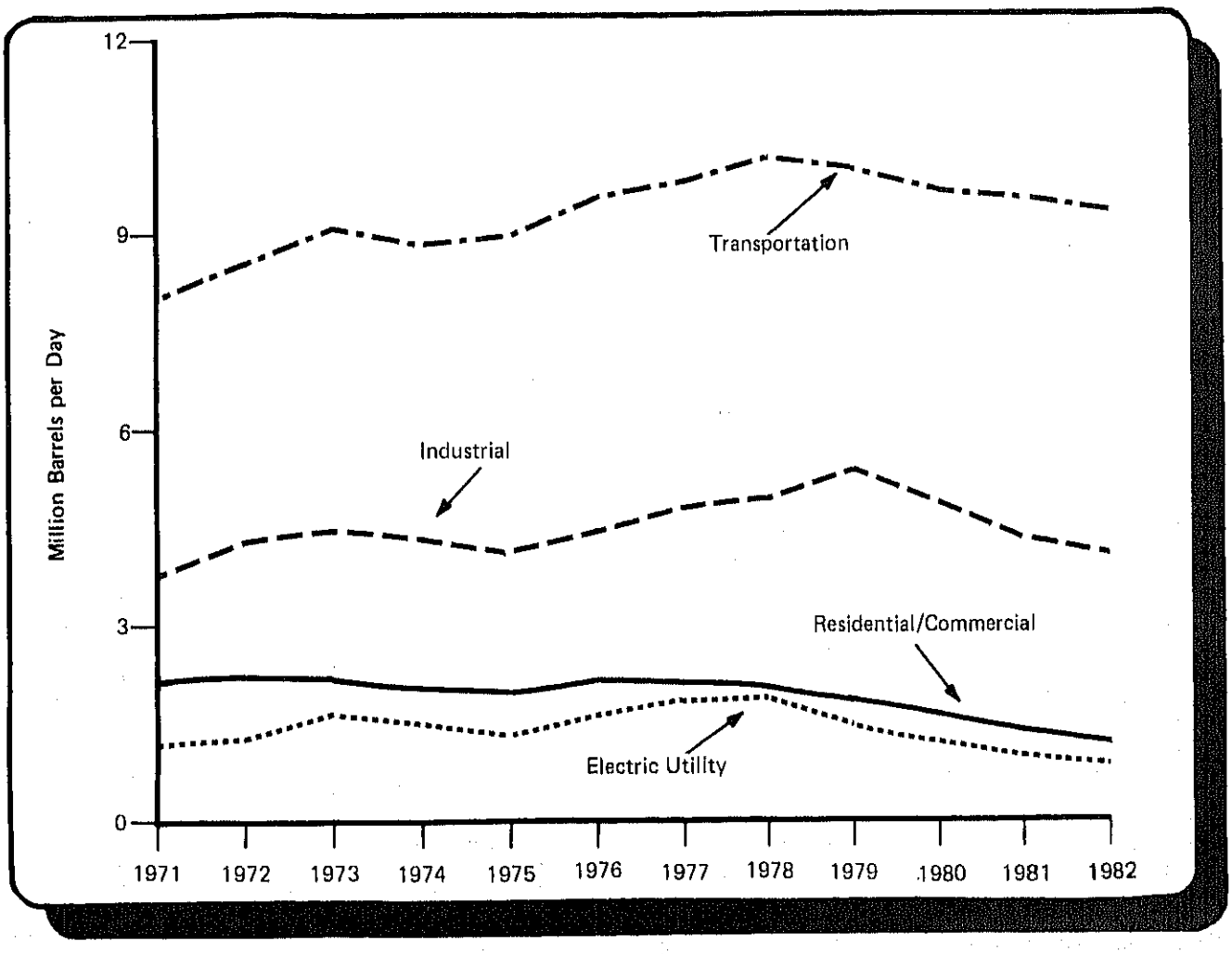
In 1983, jet fuel prices dropped to 1980 level,[15] the economic recovery contributed to increased personal and business travel, and airline schedules were almost normal. As in other industries, however, consumption was affected by fuel efficiency improvements: airlines were replacing older planes with 30-40 percent more fuel-efficient equipment.[16] The continued flat jet fuel consumption in 1983 is attributed to the combined effects of these factors.

End-Use Sector Consumption

Petroleum consumption for transportation in recent years declined at a much slower rate than did residential/commercial, electric utility, and industrial consumption (see Figure 5). This section describes these changes and the factors which influenced them.

[15]Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380 (83/12[2]), February 1984, Table 11.
[16]*U.S. News and World Report*, March 21, 1983, p. 63.

Figure 5. Consumption of Petroleum Products, by End-Use Sector



Source: Energy Information Administration, State Energy Data System.

Definitions of Major End-Use Consuming Sectors

The State Energy Data System assigns energy consumption to five major end-use sectors according to the following guidelines:

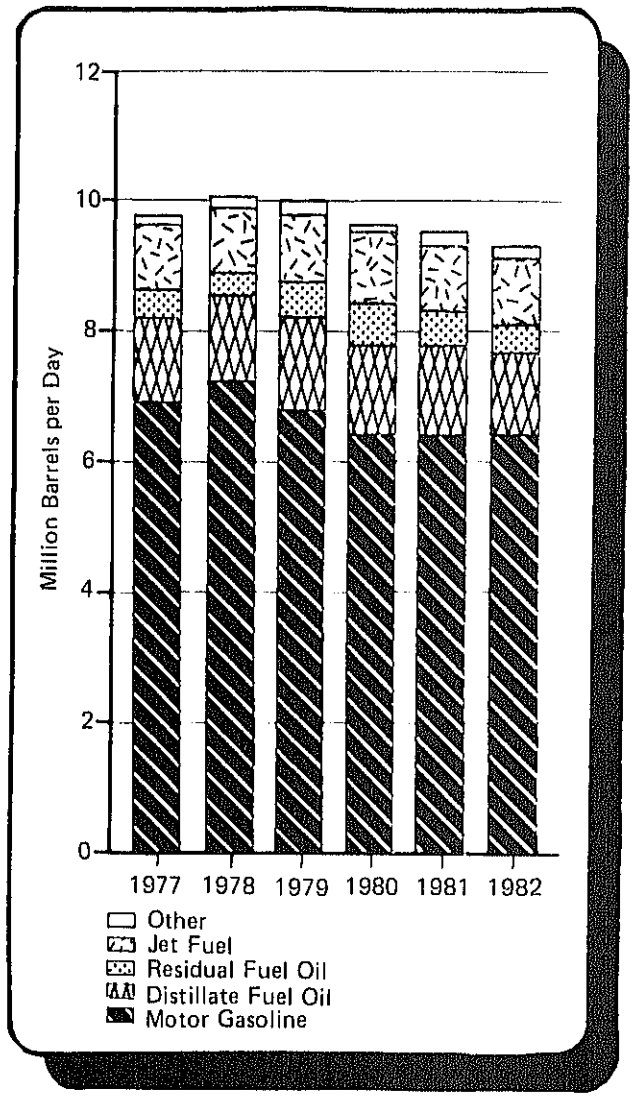
- **Residential Sector.** Energy consumed by private household establishments primarily for space heating, water heating, air conditioning, cooking, and clothes drying.
- **Commercial Sector.** Energy consumed by nonmanufacturing establishments. Included are motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises, as well as health, social, and educational institutions, and energy consumed by Federal, State, and local government.
- **Industrial Sector.** Energy consumed by manufacturing, construction, mining, agriculture, fishing, and forestry establishments.
- **Transportation Sector.** Energy consumed to move people and commodities in both the public and private sectors. Also included are military, railroad, vessel bunkering, and marine uses, as well as the pipeline transmission of natural gas.
- **Electric Utility Sector.** Energy consumed by privately- and publicly-owned establishments which generate electricity primarily for resale.

Transportation Sector

Throughout the 1970's and early 1980's, the transportation sector has consumed about one-fourth of the Nation's energy, and petroleum has accounted for about 97 percent of the energy used in this sector. Transportation use of petroleum products decreased each year after peaking in 1978 at 10.1 million barrels per day (see Figure 6), and was 8 percent lower by 1982 when 9.3 million barrels per day were consumed. The portion of petroleum used for transportation has increased since then, however, from 54 percent in 1978 to 61 percent in 1982, because consumption in other sectors dropped more rapidly.

The increase in the use of petroleum products for transportation was interrupted after the 1973 price escalation. Consumption then peaked in 1978, and subsequently declined each year through 1982 (refer to Figure 5). Three main conditions contributed to the decline in transportation use between 1979 and 1982. The price of petroleum products in the transportation sector jumped 34 percent in 1979, and climbed another 38 percent in 1980.[17] As prices escalated, the recessionary economy of 1981 and 1982 contributed to lower railroad activity, shipping, and travel. At the same time the cumulative impact of fuel efficiency improvements (increased miles per gallon in highway vehicles; more efficient replacement equipment) was affecting all types of transportation use.

Figure 6. Transportation Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

In 1983, consumption of motor gasoline, distillate fuel oil, jet fuel, and liquefied petroleum gas (propane) in the transportation sector rose slightly as the economic upturn resulted in more travel and increased rail and truck traffic.[18] [19] Consumption was tempered somewhat by continued fuel efficiency improvements. Transportation use of residual fuel oil, however, declined for the third straight year as vessel bunkering requirements continued downward.[20]

[17] Energy Information Administration, *Energy Price and Expenditure Data Report, 1970-1980*, DOE/EIA-0376, July 1983, Table 3.

[18] U.S. Department of Transportation, Federal Highway Administration, *Selected Highway Statistics and Charts 1982*, p. 4, and *Traffic Volume Trends*, December 1983, Table 4.

[19] *LP-Gas*, November 1983, p. 10.

[20] Estimates based on U.S. Department of Commerce, *United States Foreign Trade, Bunker Fuels*, January 1983 through December 1983.

Residential/Commercial Sector

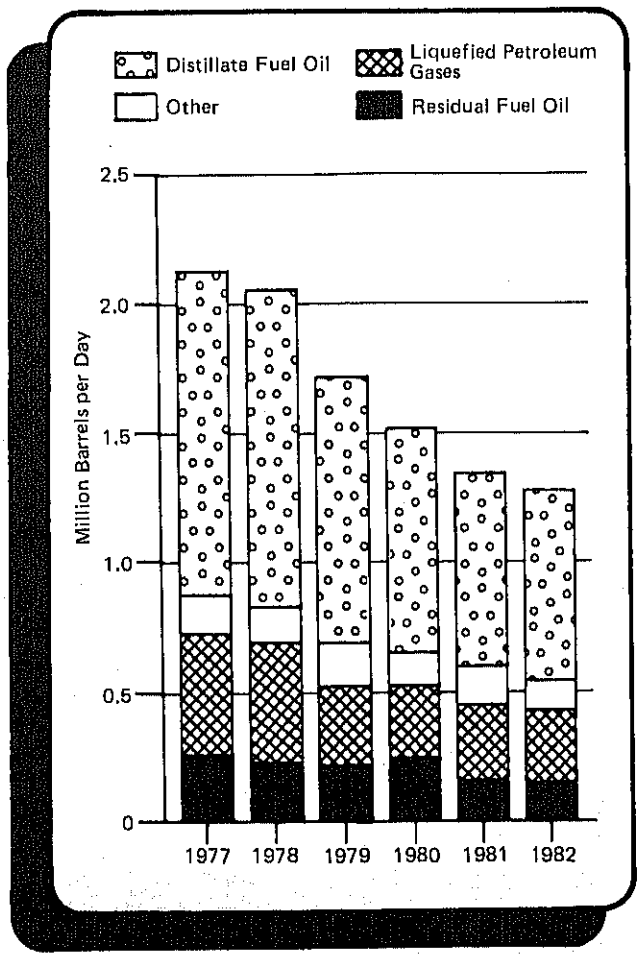
Energy use in the residential/commercial sector of the economy represents more than one-third of all energy needs in the United States. Space heating and water heating account for much of the petroleum use in this sector. In 1982, 60 percent of the energy used for residential/commercial purposes was supplied by electricity (including losses), 29 percent by natural gas, and only 10 percent by petroleum products. By contrast, petroleum supplied 16-17 percent during most of the 1970's. The portion of petroleum used in the residential/commercial sector has decreased as well over the years. In the early 1970's, the residential/commercial sector accounted for 14 percent of all petroleum product consumption; by 1982, this sector consumed only 8 percent.

As previously illustrated in Figure 5, residential/commercial use of petroleum was higher in the early 1970's than at any time since. Even in 1978, when the weather was 8 percent colder than normal,[21] and energy consumption in this sector was at its highest, petroleum consumption declined (see Figure 7). Between 1979 and 1983, warmer weather conditions than in 1978 contributed to lower energy use in this sector.

With the rapid price rises associated with the 1973 Arab Oil Embargo came a serious interest in conservation. The cumulative effect of permanent conservation measures, such as improved building insulation and development of practical solar-heating methods, contributed to the yearly decline in residential/commercial use of petroleum products since 1977. Switching to less expensive fuels also influenced the decline, especially since 1979, when residential/commercial petroleum prices increased at double the rate of natural gas price increases, and at five times the rate of electricity price increases.[22] By 1982, residential/commercial use of petroleum hit its lowest level since data for this sector was first separately classified, in 1960.

In 1983, residential/commercial use of petroleum products declined for the sixth consecutive year, in association with the continued effects of conservation and mild weather in the winter of 1982-83.

Figure 7. Residential/Commercial Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

Electric Utility Sector

About one-third of the energy consumed in the United States is associated with the production of electricity. Petroleum, coal, natural gas, hydropower and nuclear power are the primary sources of energy for the production of electricity.

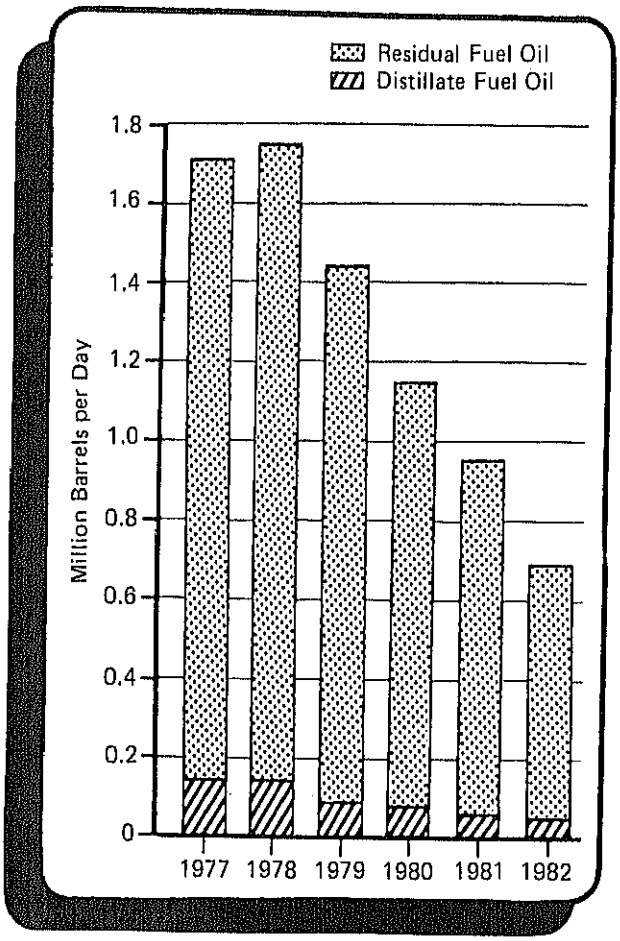
Coal, the least expensive fossil fuel, provided about 45 percent of utilities' energy needs during the 1970's, and accounted for over 50 percent during the early 1980's. Petroleum's share declined in the past decade from 18 percent to 6 percent. During that period, nuclear power's share increased from 5 percent in 1973 to 13 percent in 1982. The high price of petroleum relative to the price of natural gas and coal also contributed to its decline through 1982.

Petroleum consumption at electric utilities was 0.7 million barrels per day in 1982, 61 percent below the 1978 peak of 1.8 million barrels per day (see Figures 5 and 8). Residual and distillate fuel oils are the major petroleum products used at electric utilities.

In 1983, the price per Btu of petroleum at utilities decreased, while the price for the other fossil fuels increased. This reversal in trend led some utilities to switch back to petroleum from natural gas in early 1983, and helped to slow the decline in petroleum use.[23] Before 1983, petroleum use had been declining sharply in recent years—by as much as 29 percent in 1982.[24]

[21] Energy Information Administration, *Residential Energy Consumption Survey, Consumption and Expenditures, April 1981 through March 1982*, DOE/EIA-0321 (1/81), September 1983, p. 3.
[22] Energy Information Administration, *Energy Price and Expenditure Data Report, 1970-1980*, DOE/EIA-0376, July 1983, Table 3.
[23] American Gas Association, *Industrial Fuel Switching: 1982 and 1983 Potential*, July 29, 1983.
[24] Energy Information Administration, *Electric Power Monthly*, DOE/EIA-0226 (83/12), December 1983, Table 12.

Figure 8. Electric Utility Use of Petroleum, by Product



Source: Energy Information Administration, State Energy Data System.

Industrial Sector

The industrial sector is the largest consumer of energy in the United States, and accounts for more than one-fourth of the total U.S. consumption of petroleum products. Industrial consumption of petroleum peaked in 1979 at 5.4 million barrels per day, then declined each following year through 1983. This decline was greater than declines in petroleum use in other sectors. The decline was associated with the economic slowdown, fuel switching, and conservation efforts by industry.

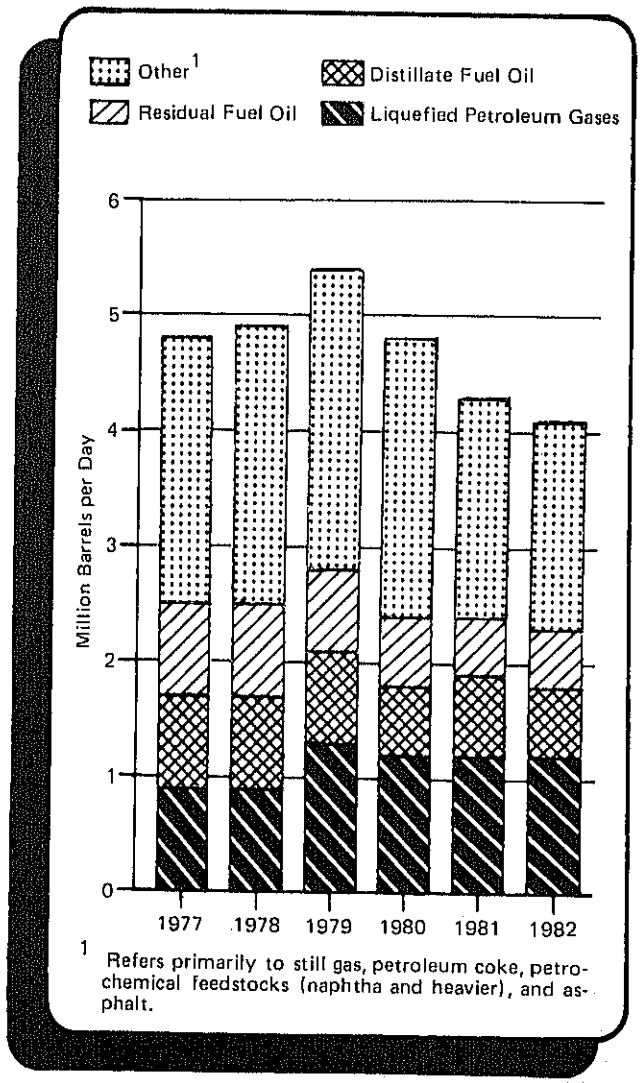
In recent years, many industrial energy consumers installed dual-fuel facilities[25] to cushion themselves from shortages and price increases. While the industrial use of all fossil fuels declined during the past 2 years, increasing natural gas prices, combined with lower petroleum prices, led to increased use of petroleum fuels relative to the use of natural gas.

Liquefied petroleum gases (LPG's), distillate fuel oil, and residual fuel oil are the major petroleum products consumed in the industrial sector. Other petroleum products used include asphalt, still gas, petroleum coke, and naphtha feedstocks. Industrial consumption of LPG's and distillate fuel oil peaked in 1979, while industrial consumption of residual fuel oil peaked in 1977 (see Figure 9).

The accompanying article, "Petroleum Consumption in the Industrial Sector," includes further information on industrial consumption of petroleum products in recent years.

[25]J. Slaff, "Dual Fuel Boiler Use Seen Holding Oil Costs Steady," *Energy User News*, Vol. 9, No. 9, February 27, 1984, p. 1.

Figure 9. Industrial Use of Petroleum, by Product



[1] Refers primarily to still gas, petroleum coke, petrochemical feedstocks (naphtha and heavier), and asphalt.

Source: Energy Information Administration, State Energy Data System.

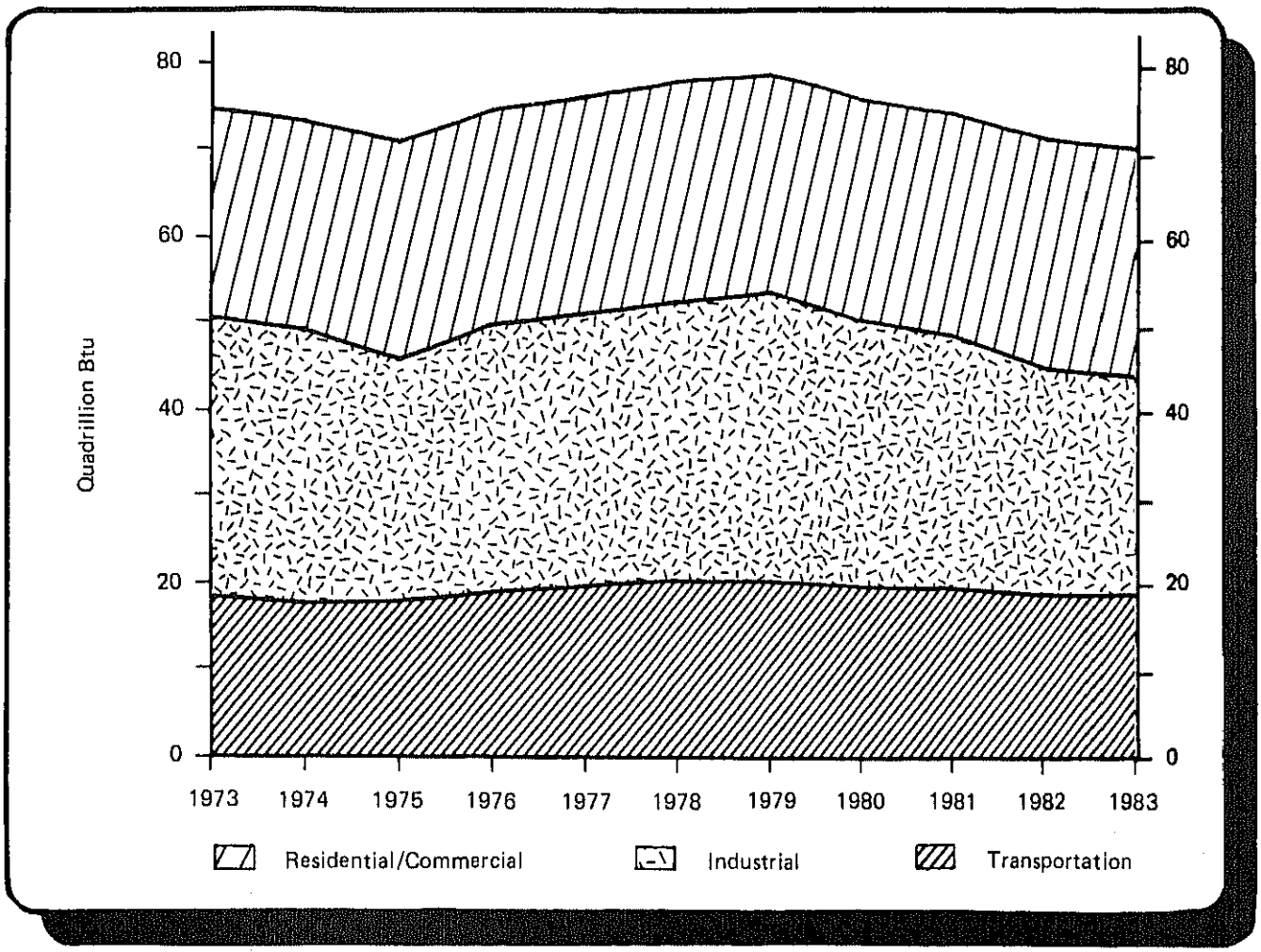
Petroleum Consumption in the Industrial Sector

U.S. gross energy consumption totaled 70.7 quadrillion British thermal units (Btu) in 1983, according to Energy Information Administration (EIA) estimates.[1] Consumption was slightly below the 1982 level and represented the fourth consecutive yearly decline since the 1979 consumption peak of 78.9 quadrillion Btu (see Figure 1). This decline took place despite the nearly 4 percent increase in the Gross National Product (GNP) during the 1979-83 period. The impetus for this dramatic decrease in energy consumption was the significant increase in energy prices that immediately followed the 1979 Iranian oil supply disruption. Between 1979 and 1981, the average refiner acquisition cost of crude oil increased from $17.72 to $35.24 per barrel. It then declined to $29.01 per barrel in 1983. Wholesale prices of leading petroleum products paralleled those changes.

Energy consumption by end-use sector from 1973 to 1983 is shown in Figure 1. Electricity sales and energy losses, such as those occurring in the generation and transmission of electricity, are included in the energy consumption totals for each sector. These electricity sales and energy losses account for more than one-half of the energy consumed by the residential/commercial sector; they are a minor part of energy consumption in the transportation sector; they account for about one-third of the energy consumed by the industrial sector, the largest energy consumer in the United States. The industrial sector accounts for more than one-fourth of U.S. petroleum product consumption, and includes

[1]Energy Information Administration, *Short-Term Energy Outlook*, DOE/EIA-0202 (84/1Q), February 1984.

Figure 1. Energy Consumption, by End-Use Sector



Source: Energy Information Administration, "Monthly Energy Review," December 1983 [3] and "State Energy Data Report, 1960 through 1981," June 1983. Estimates for 1983 are based on preliminary data.

agriculture, construction, fishing, forestry, manufacturing, and mining.

Domestic petroleum consumption averaged 15.2 million barrels per day during 1983, down 112,000 barrels per day from the 1982 level and 18 percent below the 18.5 million barrels per day during 1979.[2] In 1983, petroleum consumption was at the country's lowest level since 1970 and resulted from a low level of economic activity, price-stimulated fuel switching, and conservation efforts. Since 1979, the largest decline in demand for petroleum occurred in the industrial sector. Although the percentage decline in electric utility use was higher, the volume of decline was less than that of the industrial sector. This article discusses the major petroleum products used by the industrial sector and the principal consuming areas in that sector. The industrial petroleum consumption estimates for 1983 are based on preliminary data. These estimates also assume individual product consumption shares virtually the same as those reported for 1982.

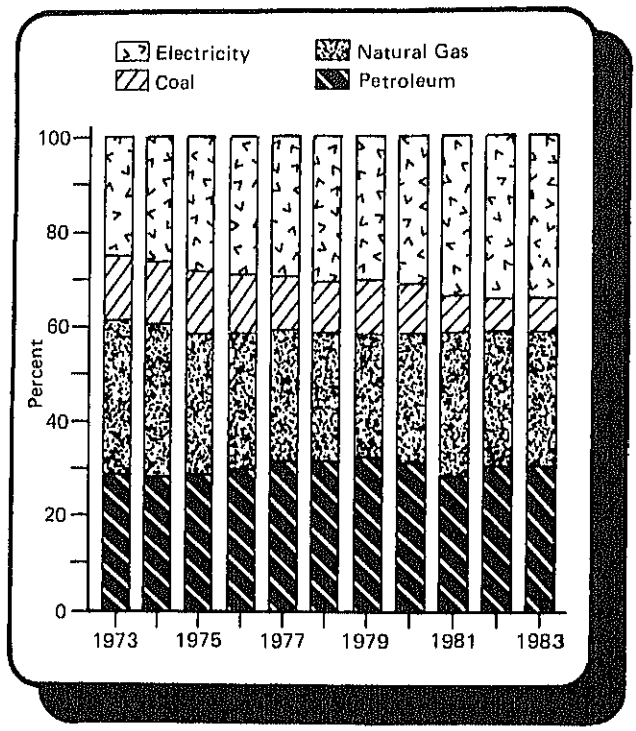
Petroleum Consumption in the Industrial Sector

Energy consumption by the industrial sector declined steadily from the peak of 32.7 quadrillion Btu in 1979 to 25.8 quadrillion Btu during 1983, responding to decreases in energy-intensive production of basic industries. The relative importance of coal, natural gas, and petroleum fuels and feedstocks to the industrial sector has not changed greatly in recent years (see Figure 2), and the use of electricity has established its importance in many industrial applications. Electricity has increased its share of the energy consumed by industry during each of the last 10 years. During 1983, electricity accounted for an estimated 34 percent of all the energy consumed by the industrial sector.

Consumption of petroleum by the industrial sector experienced its fourth consecutive year of decline and averaged 4.0 million barrels per day in 1983 (see Figure 3). This was down about 1 percent from the 1982 level and its lowest level since 1971. The decline was associated with the economic slowdown, fuel switching, and conservation efforts by industry.

In recent years, many industrial energy consumers have installed dual-fuel facilities to cushion themselves from shortages and rising prices.[3] During the past 2 years, while natural gas prices were increasing steadily and petroleum prices remained constant or declined, many firms switched to petroleum. However, natural gas remained the preferred fuel for some industries, as fuel oils require greater boiler maintenance and often require outlays of capital for equipment necessary to control sulfur emissions. Some switching also occurred from petroleum to natural gas, for economic reasons. This was evident during 1981, when unattractive petroleum prices caused industries to switch from oil to natural gas. Companies equipped with dual-fuel boilers burned the most economical fuels available, and some further reduced fuel costs by blending industrial waste materials with petroleum fuel stocks.

Figure 2. Industrial Energy Consumption



Source: Energy Information Administration, "Monthly Energy Review," December 1983 [3]. Estimates for 1983 are based on preliminary data.

During 1983, petroleum continued to be one of the primary fuels utilized by industry. It accounted for 30 percent of the sector's energy consumption. This was a slightly smaller portion of total energy consumed by the industrial sector than in the peak demand year of 1979. However, in 1983, industry used more petroleum than natural gas. Gas consumption declined steadily in the industrial sector during the past decade; natural gas accounted for an estimated 26 percent of the industrial sector's needs during 1983.

[2]Energy Information Administration, *Petroleum Supply Monthly*, DOE/EIA-0109 (83/12[3]), December [3] 1983.

[3]While EIA does not collect data on industrial dual-fuel facilities, the growing use of multi-fuel boilers has been widely reported in the press. For example, see a review of dual-fuel boiler use that appeared on page 1 of the *Energy User News* on February 27, 1984. In the past, *Energy User News* has also reported preliminary findings of an industrial user survey concerned with fuel switching and dual-fuel boiler use conducted by the Ohio Manufacturer's Association and the State's Department of Energy, (January 31, 1983, p. 1); a major auto manufacturer's installation of dual-fuel boilers at eight Michigan plants (April 4, 1983, p. 1); the Michigan Public Service Commissions' approval of lower Southeastern Michigan Gas Company rates for dual-fuel users (January 30, 1984, p. 35); and a technology report on multi-fuel boilers including suppliers (April 11, 1983, p. 1). Similar reports have appeared in other trade journals.

Liquefied petroleum gases (LPG's),[4] distillate and residual fuel oils, and numerous other petroleum products are used as fuels for heat, power, and as feedstocks for industry. LPG's made up nearly one-third of the petroleum used in the industrial sector during 1983 (see Figure 3). Distillate and residual fuel oils were the second and third most important petroleum products consumed by industry, respectively. Historically, more than half of the petroleum products used by industry are consumed in Petroleum Administration for Defense Districts II and III,[5] which include the Midcontinent and Gulf Coast States. Major petroleum and natural gas liquids production, refining, and petrochemical centers are located in these areas.

Liquefied Petroleum Gases

LPG consumption in all sectors of the U.S. economy peaked at 1.6 million barrels per day in 1979 and has averaged 1.5 million barrels per day each year since then. Together, LPG's are the leading petroleum products utilized by the industrial sector. They accounted for nearly one out of every three barrels of petroleum products consumed by that sector during 1983, and exceeded the industrial sector's combined consumption of distillate and residual fuel oils. Industrial consumption of LPG's averaged an estimated 1.2 million barrels per day during 1983, essentially unchanged from the previous year, but down about 9 percent from the record 1.3 million barrels per day in 1979. This was mainly in response to the lower industrial activities caused by the economic downturn. Wholesale propane prices averaged $29.50 per barrel for the first 11 months of 1983,[6] more than double the $12.39 per barrel average for the year 1979.[7]

Industrial uses of LPG's include:

- Feedstock for petrochemicals and for the manufacture of gasoline.
- Fuel for internal-combustion engines and for in-plant processing equipment.
- Fuel for space heating, animal incubators, grain dryers, and other farm equipment.

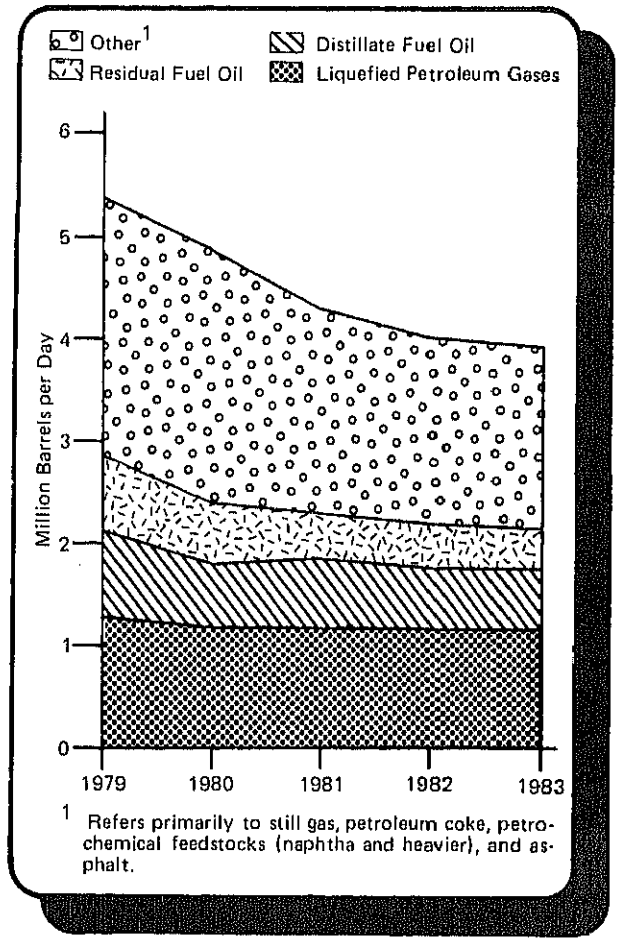
More than half of all industrial use of LPG's takes place in Illinois, Louisiana, Ohio, and Texas.

EIA's *Petroleum Supply Monthly*, November 1983, included further information on LPG terminology, usage, and market trends.

Distillate Fuel Oil

Estimated consumption of distillate fuel oil by the industrial sector averaged about 600,000 barrels per day during 1983, down about 30 percent from the peak of 830,000 barrels per day in 1979, mainly in response to price increases, conservation efforts, and fuel switching. Preliminary data show that the average wholesale price for No. 2 heating oil was $35.29 per barrel during 1983, compared with $22.26 during 1979.

Figure 3. Industrial Consumption of Petroleum Products



Source: Energy Information Administration, "State Energy Data Report, 1960 through 1981," and "1982 Annual Energy Review." Estimates for 1983 are based on preliminary data.

Industrial uses of distillate fuel oil include:

- Fuel for stationary power sources in plants and factories for manufacturing processes and for the generation of steam and electricity.
- Fuel for heavy construction equipment.
- Fuel for space and water heating.

Texas, California, and Louisiana continued to be the leading States in distillate fuel oil consumption for industrial purposes.

[4]Propane, propylene, butane, butylene, butane-propane mixtures, ethane, ethane-propane mixtures, and isobutane produced at refineries and natural gas processing plants, including plants that fractionate raw natural gas plant liquids.
[5]Energy Information Administration, *State Energy Data Report* 1960 through 1981, DOE/EIA-0214 (81), June 1983.
[6]Energy Information Administration, *Petroleum Marketing Monthly*, DOE/EIA-0380 (83/04-12[2]), April-December 1983 [2].
[7]Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035 (83/12[3]), December 1983 [3].

Residual Fuel Oil

Consumption of residual fuel oil by the industrial sector fell sharply from 720,000 barrels per day in 1979 to an estimated 400,000 barrels per day in 1983, as low levels of economic activity were accompanied by price-induced fuel switching to natural gas and other competing fuels. The average wholesale price of residual fuel oil increased steadily from $17.66 per barrel in 1979 to $27.31 in 1983.

Industrial uses of residual fuel oil include:

- Fuel for stationary sources of power for manufacturing processes and generation of steam and electricity in plants and factories.
- Fuel for space and water heating.

The leading States for industrial use of residual fuel oils are Texas, Louisiana, and California.

Other Petroleum Products

Significant quantities of asphalt, kerosene, petroleum coke, and other petroleum products continued to be important fuels and feedstocks for U.S. industries. Industrial consumption of these products averaged an estimated 1.8 million barrels per day during 1983, accounting for nearly one-half of the petroleum used by industry. This was some 400,000 barrels per day below the consumption rate in 1979.

Industrial uses of these products include:

- **Asphalt.** Feedstock for paving and construction materials, floor and roofing coverings, and other protective applications.
- **Kerosene.** Feedstock for the manufacture of insecticides and paints, and fuel for space heating and crop drying.
- **Petroleum coke.** Feedstock for the manufacture of chemicals and electrodes, and fuel for metal refining.

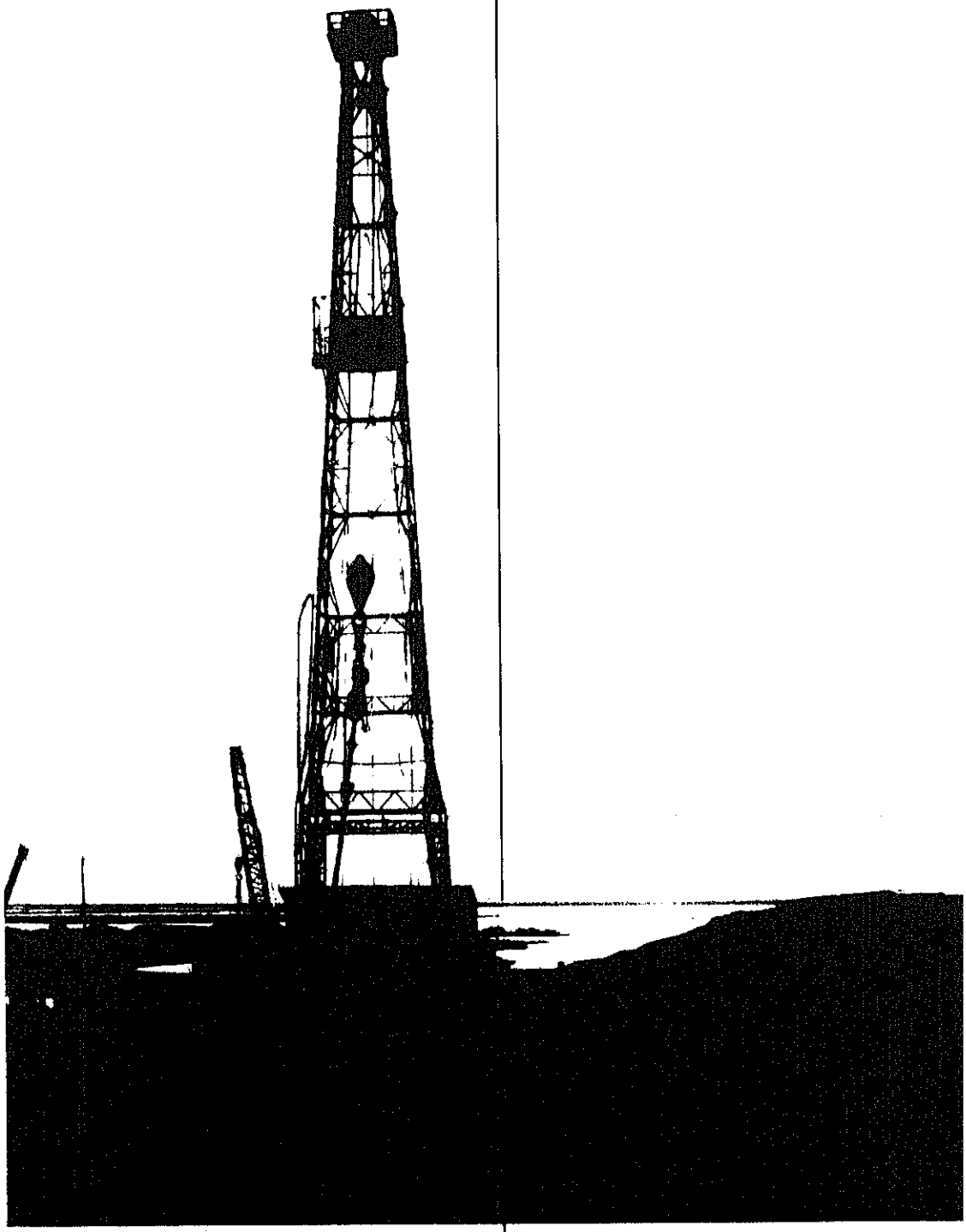
Texas, Ohio, and Illinois continue to be the leading consuming States for these products.

Outlook

Manufacturing activities in the United States are increasing: industrial production is rising and reducing idle industrial capacity. EIA's February 1984 *Short-Term Energy Outlook* was based on an assumed manufacturing increase of about 10 percent in 1984, along with an increase in the GNP of about 5 percent. This improvement in industrial activity is expected to increase petroleum consumption about 200,000 barrels per day during 1984, as attractive prices encourage increased use of petroleum fuels and feedstocks. The anticipated industrial growth is projected to result in increased consumption of all major petroleum products.

Price-induced fuel switching capability of industrial energy users is expected to continue and possibly intensify during 1984, as firms add dual-fuel capabilities to protect against fuel shortages and minimize the impact of fuel price increases.

Summary Statistics



Crude Oil[1] and Petroleum Products Overview

	Field Production			Stock Withdrawal[2]			Ending Stocks[3]
	Total Domestic[4]	Crude Oil	Natural Gas Plant Production	Crude Oil[5]	Petroleum Products	Petroleum Products Supplied	Crude Oil[5] and Petroleum Products
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**10,975**	**9,208**	**1,738**	**11**	**-146**	**17,308**	**1,008**
1974 AVERAGE	**10,498**	**8,774**	**1,688**	**-62**	**-117**	**16,653**	[8] **1,074**
1975 AVERAGE	**10,045**	**8,375**	**1,633**	[8] **-17**	[8] **-145**	**16,322**	**1,133**
1976 AVERAGE	**9,774**	**8,132**	**1,603**	**-39**	**96**	**17,461**	**1,112**
1977 AVERAGE	**9,913**	**8,245**	**1,618**	**-170**	**-378**	**18,431**	**1,312**
1978 AVERAGE	**10,328**	**8,707**	**1,567**	**-78**	**172**	**18,847**	**1,278**
1979 AVERAGE	**10,179**	**8,552**	**1,584**	**-148**	**-25**	**18,513**	**1,341**
1980 AVERAGE	**10,214**	**8,597**	**1,573**	**-98**	**-42**	**17,056**	[8] **1,392**
1981 AVERAGE	**10,230**	**8,572**	**1,609**	[8] **-290**	[8] **130**	**16,058**	1,484
1982 January	10,128	8,509	1,578	-401	1,298	16,124	1,456
February	10,312	8,702	1,563	-242	1,230	16,001	1,428
March	10,284	8,667	1,572	121	1,047	15,560	1,392
April	10,188	8,591	1,542	-37	1,583	16,046	1,346
May	10,244	8,683	1,518	29	-66	14,847	1,347
June	10,212	8,646	1,511	40	-489	14,998	1,360
July	10,229	8,658	1,513	-147	-926	14,821	1,393
August	10,215	8,634	1,524	-440	-44	14,839	1,408
September	10,279	8,701	1,518	263	-447	15,022	1,414
October	10,299	8,701	1,530	-548	-47	14,859	1,432
November	10,359	8,697	1,609	-398	-361	15,009	1,455
December	10,276	8,598	1,628	128	688	15,487	[8] 1,430
AVERAGE	**10,252**	**8,649**	**1,550**	**-136**	**283**	**15,296**	
1983 January	10,356	8,634	1,668	-567	[8] 865	14,765	1,453
February	10,298	8,660	1,585	-382	1,128	14,772	1,432
March	10,259	8,677	1,544	56	1,765	15,484	1,375
April	10,229	8,686	1,502	-438	431	14,779	1,376
May	10,231	8,682	1,483	68	-759	14,250	1,397
June	10,262	8,676	1,514	-163	-242	15,281	1,409
July	10,237	8,647	1,536	118	-922	14,913	1,434
August	10,257	8,653	1,561	-781	-289	15,366	1,467
Sepptember	10,323	8,666	1,598	-191	-634	15,396	1,492
October	10,317	8,654	1,604	-180	-456	14,947	1,512
November	10,310	8,624	1,636	182	-128	15,533	1,510
December	10,188	8,612	1,533	-306	2,150	16,691	1,453
AVERAGE	**10,272**	**8,656**	**1,564**	**-215**	**239**	**15,184**	
1984 January*	10,282	8,659	1,585	R -342	R 1,085	R 16,726	R 1,430
February**	NA	8,726	NA	*51*	*-749*	*15,386*	*1,442*
AVERAGE	**NA**	**8,691**	**NA**	**-152**	**199**	**16,078**	

[1] Includes lease condensate.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Stocks are totals as of end of period.
[4] Includes crude oil, natural gas plant production, other hydrocarbons, and alcohol.
[5] Includes stocks located in the Strategic Petroleum Reserve.
[6] Includes crude oil for storage in the Strategic Petroleum Reserve.
[7] Net Imports equal Imports minus Exports.
[8] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.

Footnotes continued on following page.

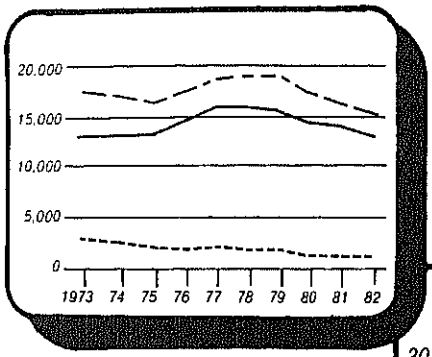
Crude Oil[1] and Petroleum Products Overview (continued)

	Imports			Exports			
	Total	Crude Oil[6]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net[7] Imports
	Thousand Barrels per Day						
1973 AVERAGE	**6,256**	**3,244**	**3,012**	**231**	**2**	**229**	**6,025**
1974 AVERAGE	**6,112**	**3,477**	**2,635**	**221**	**3**	**218**	**5,892**
1975 AVERAGE	**6,056**	**4,105**	**1,951**	**209**	**6**	**204**	**5,846**
1976 AVERAGE	**7,313**	**5,287**	**2,026**	**223**	**8**	**215**	**7,090**
1977 AVERAGE	**8,807**	**6,615**	**2,193**	**243**	**50**	**193**	**8,565**
1978 AVERAGE	**8,363**	**6,356**	**2,008**	**362**	**158**	**204**	**8,002**
1979 AVERAGE	**8,456**	**6,519**	**1,937**	**472**	**235**	**237**	**7,984**
1980 AVERAGE	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 AVERAGE	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 January	5,332	3,693	1,639	829	238	591	4,503
February	4,807	2,990	1,817	804	304	499	4,003
March	4,484	2,874	1,610	882	321	561	3,602
April	4,378	2,849	1,529	786	174	611	3,593
May	4,811	3,309	1,503	803	262	542	4,008
June	5,327	3,836	1,491	703	94	609	4,624
July	5,890	4,248	1,642	741	229	512	5,149
August	5,244	3,851	1,392	858	304	554	4,386
September	5,414	3,636	1,778	791	184	606	4,624
October	5,306	3,670	1,636	932	270	662	4,374
November	5,744	3,862	1,882	786	262	524	4,958
December	4,606	3,000	1,605	860	193	667	3,746
AVERAGE	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 January	4,372	2,938	1,434	973	117	856	3,399
February	3,691	2,268	1,423	865	262	603	2,825
March	3,629	2,232	1,398	801	174	627	2,829
April	4,744	3,154	1,590	809	88	721	3,935
May	4,898	3,234	1,664	848	280	568	4,049
June	5,218	3,502	1,716	774	144	630	4,443
July	5,690	3,868	1,822	571	145	426	5,119
August	6,036	4,174	1,863	663	172	491	5,373
Sepptember	6,088	4,221	1,867	684	177	507	5,403
October	5,256	3,446	1,810	576	140	436	4,680
November	5,168	3,312	1,856	679	186	494	4,489
December	4,986	3,214	1,772	639	95	544	4,348
AVERAGE	**4,988**	**3,303**	**1,686**	**739**	**164**	**575**	**4,249**
1984 January*	R 5,347	R 3,029	R 2,318	575	153	422	4,772
February**	*5,275*	*3,016*	*2,258*	NA	NA	NA	NA
AVERAGE	**5,312**	**3,023**	**2,289**	**NA**	**NA**	**NA**	**NA**

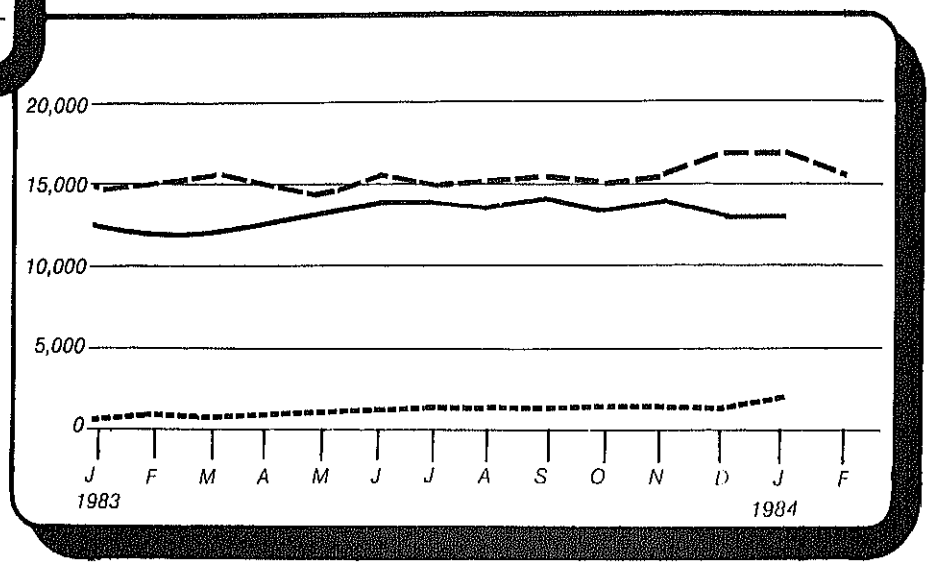
Footnotes continued.
* See Explanatory Note 9.1.
** Italics denote estimates based upon prelimanary data. See Explanatory Note 8.
R = Revised data. NA = Not available.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Petroleum Overview

(Thousand Barrels Per Day)



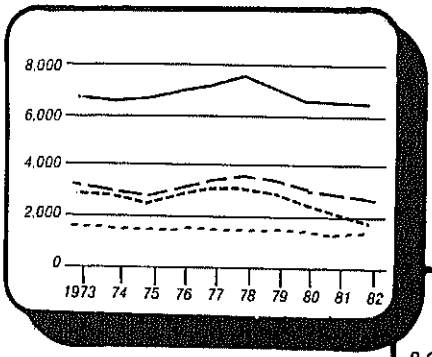
Annual



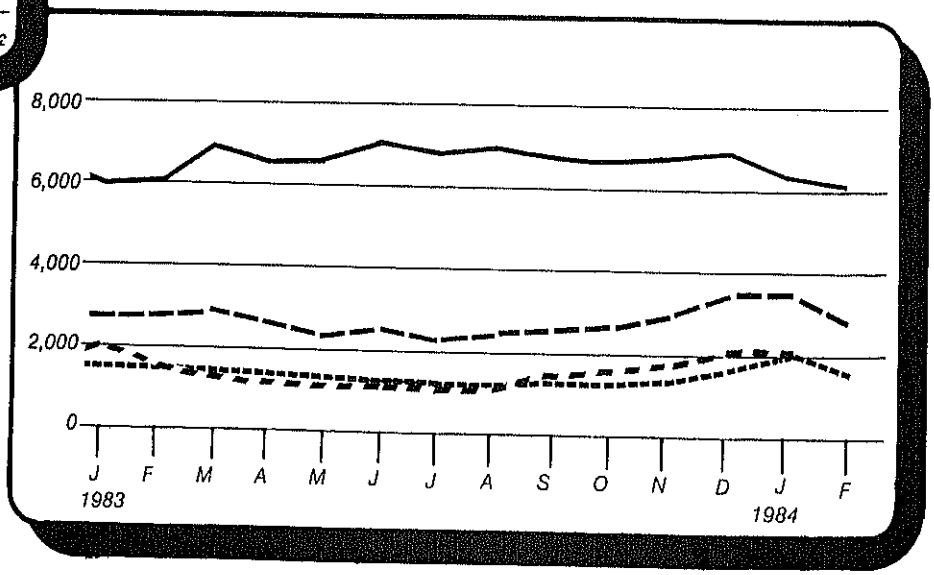
Monthly

Petroleum Products Supplied

(Thousand Barrels Per Day)



Annual

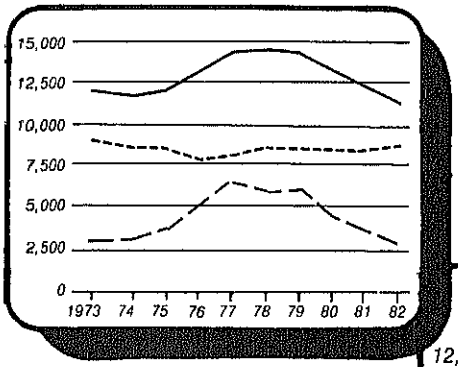


Monthly

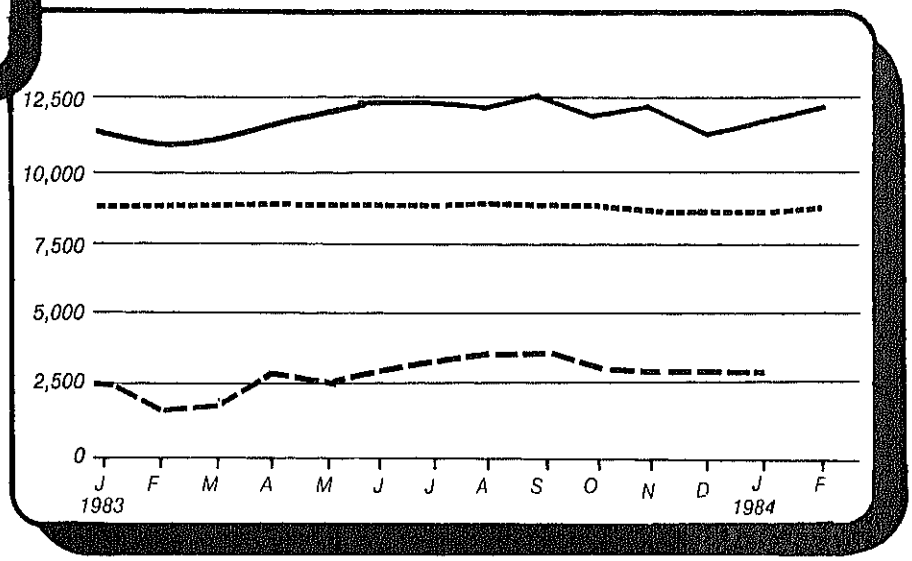
[1] Liquefied Petroleum Gases

Crude Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

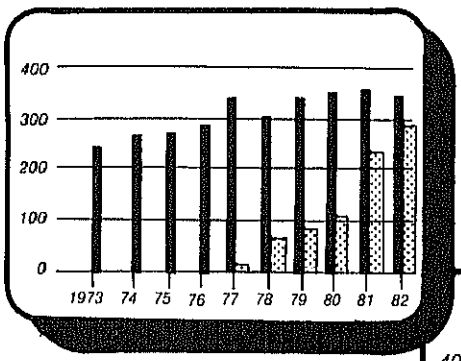


Monthly

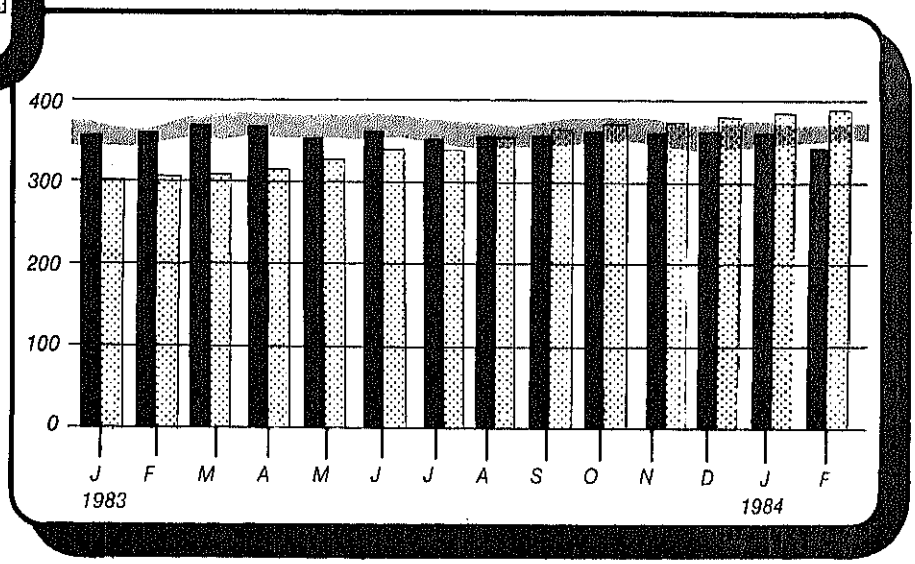
[1] Excludes SPR Imports

Crude Oil Ending Stocks

(Million Barrels)



Annual



Monthly

[1] Level and width of Average Stock Ranges for crude oil is based on 3 years of data, July 80-July 83. See Explanatory Note 6.

Crude Oil[1] Supply and Disposition

	Supply							
	Field Production		Imports			Stock Withdrawal[3]		
	Total Domestic	Alaskan	Total	SPR[4]	Other	SPR[4]	Other	Unaccounted for Crude Oil
	Thousand Barrels per Day							
1973 AVERAGE	9,208	198	3,244		3,244		11	3
1974 AVERAGE	8,774	193	3,477		3,477		-62	-25
1975 AVERAGE	8,375	191	4,105		4,105		-17	17
1976 AVERAGE	8,132	173	5,287		5,287		-39	77
1977 AVERAGE	8,245	464	6,615	21	6,594	-20	-150	-6
1978 AVERAGE	8,707	1,229	6,356	162	6,195	-163	84	-57
1979 AVERAGE	8,552	1,401	6,519	67	6,452	-67	-81	-11
1980 AVERAGE	8,597	1,617	5,263	44	5,219	-45	-52	34
1981 AVERAGE	8,572	1,609	4,396	256	4,141	-336	[6] 46	83
1982 January	8,509	1,705	3,693	170	3,523	-159	-242	101
February	8,702	1,707	2,990	159	2,830	-213	-29	156
March	8,667	1,696	2,874	185	2,689	-235	357	2
April	8,591	1,691	2,849	190	2,659	-233	196	231
May	8,683	1,707	3,309	204	3,105	-176	205	111
June	8,646	1,665	3,836	105	3,732	-105	144	133
July	8,658	1,710	4,248	97	4,150	-97	-50	-20
August	8,634	1,697	3,851	208	3,643	-208	-232	189
September	8,701	1,705	3,636	139	3,497	-143	406	-210
October	8,701	1,706	3,670	216	3,454	-216	-332	249
November	8,697	1,676	3,862	180	3,683	-179	-219	-124
December	8,598	1,682	3,000	124	2,877	-125	252	35
AVERAGE	8,649	1,696	3,488	165	3,323	-174	38	71
1983 January	8,634	1,698	2,938	219	2,720	-219	-348	238
February	8,660	1,725	2,268	197	2,071	-197	-185	423
March	8,677	1,726	2,232	201	2,031	-184	240	134
April	8,686	1,710	3,154	205	2,949	-197	-241	191
May	8,682	1,710	3,234	289	2,945	-293	362	148
June	8,676	1,710	3,502	190	3,312	-188	25	480
July	8,647	1,705	3,868	274	3,594	-264	382	-74
August	8,653	1,712	4,174	350	3,823	-358	-423	333
September	8,666	1,722	4,221	309	3,912	-307	116	-6
October	8,654	1,731	3,446	202	3,244	-201	21	69
November	8,624	1,713	3,312	171	3,141	-135	317	137
December	8,612	1,713	3,214	193	3,021	-252	-55	-141
AVERAGE	8,656	1,715	3,303	234	3,069	-234	19	159
1984 January*	8,659	1,741	R 3,029	R 200	R 2,829	R -173	R -169	451
February**	8,726	1,740	*3,016*	*87*	*2,930*	*-87*	*138*	NA
AVERAGE	8,691	1,741	3,023	145	2,878	-131	-21	NA

[1] Includes lease condensate.
[2] Stocks are totals as of end of period.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Strategic Petroleum Reserve.
[5] Begining in January 1983, crude oil used directly as fuel is shown as product supplied.
[6] Stocks of Alaskan crude oil in transit were included beginning in January 1981. Stock withdrawals are calculated using new basis stock levels. See Explanatory Note 11.

Footnotes continued on following page.

Crude Oil[1] Supply and Disposition (continued)

	Supply	Disposition				Ending Stocks[2]		
	Crude Used Directly[5]	Crude Losses	Refinery Inputs	Exports	Products Supplied[5]	Total Crude Oil	SPR[4]	Other Primary
	Thousand Barrels per Day					Million Barrels		
1973 AVERAGE	**-19**	**13**	**12,431**	**2**	**NA**	**242**		**242**
1974 AVERAGE	**-15**	**13**	**12,133**	**3**	**NA**	**265**		**265**
1975 AVERAGE	**-17**	**13**	**12,442**	**6**	**NA**	**271**		**271**
1976 AVERAGE	**-18**	**15**	**13,416**	**8**	**NA**	**285**		**285**
1977 AVERAGE	**-14**	**16**	**14,602**	**50**	**NA**	**348**	**7**	**340**
1978 AVERAGE	**-14**	**16**	**14,739**	**158**	**NA**	**376**	**67**	**309**
1979 AVERAGE	**-13**	**16**	**14,648**	**235**	**NA**	**430**	**91**	**339**
1980 AVERAGE	**-13**	**15**	**13,481**	**287**	**NA**	[6] 466	**108**	[6] 358
1981 AVERAGE	**-58**	**5**	**12,470**	**228**	NA	594	230	363
1982 January	-63	3	11,599	238	NA	606	235	371
February	-64	2	11,236	304	NA	613	241	372
March	-63	5	11,276	321	NA	609	249	361
April	-65	3	11,392	174	NA	610	256	355
May	-62	3	11,806	262	NA	609	261	348
June	-60	7	12,494	94	NA	608	264	344
July	-60	3	12,446	229	NA	613	267	346
August	-57	2	11,871	304	NA	626	274	353
September	-56	4	12,146	184	NA	619	278	341
October	-51	2	11,749	270	NA	636	285	351
November	-51	1	11,724	262	NA	648	290	358
December	-53	1	11,514	193	NA	644	294	350
AVERAGE	**-59**	**3**	**11,774**	**236**	NA			
1983 January	NA	2	11,070	117	54	661	301	361
February	NA	3	10,635	262	69	672	306	366
March	NA	2	10,854	174	70	670	312	359
April	NA	2	11,436	88	68	684	318	366
May	NA	1	11,789	280	63	681	327	355
June	NA	1	12,287	144	64	686	332	354
July	NA	2	12,347	145	65	683	341	342
August	NA	1	12,141	172	64	707	352	355
September	NA	1	12,445	177	66	713	361	352
October	NA	1	11,784	140	63	718	367	351
November	NA	2	12,003	186	64	713	371	341
December	NA	1	11,217	95	67	722	379	343
AVERAGE	**NA**	**1**	**11,672**	**164**	**65**			
1984 January*	NA	1	R11,579	153	64	R 733	R 384	R 348
February**	NA	NA	*12,116*	NA	NA	*727*	*387*	*340*
AVERAGE	**NA**	**NA**	**11,838**	**NA**	**NA**			

Footnotes continued.
* See Explanatory Note 9.2.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Crude Oil and Petroleum Product Imports

	Imports from OPEC Sources[1]										
	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC[2]	Total OPEC	Total Arab OPEC[3]
	Thousand Barrels per Day										
1973 AVERAGE	**136**	**164**	**486**	**71**	**213**	**223**	**459**	**1,135**	**106**	**2,993**	**915**
1974 AVERAGE	**190**	**4**	**461**	**74**	**300**	**469**	**713**	**979**	**88**	**3,280**	**752**
1975 AVERAGE	**282**	**232**	**715**	**117**	**390**	**280**	**762**	**702**	**122**	**3,601**	**1,383**
1976 AVERAGE	**432**	**453**	**1,230**	**254**	**539**	**298**	**1,025**	**700**	**134**	**5,066**	**2,424**
1977 AVERAGE	**559**	**723**	**1,380**	**335**	**541**	**535**	**1,143**	**690**	**287**	**6,193**	**3,185**
1978 AVERAGE	**649**	**654**	**1,144**	**385**	**573**	**555**	**919**	**645**	**226**	**5,751**	**2,963**
1979 AVERAGE	**636**	**658**	**1,356**	**281**	**420**	**304**	**1,080**	**690**	**212**	**5,637**	**3,056**
1980 AVERAGE	**488**	**554**	**1,261**	**172**	**348**	**9**	**857**	**481**	**130**	**4,300**	**2,551**
1981 AVERAGE	**311**	**319**	**1,129**	**81**	**366**	**0**	**620**	**406**	**90**	**3,323**	**1,848**
1982 January	254	161	877	111	289	0	663	376	128	2,859	1,403
February	139	92	693	89	244	0	584	355	102	2,297	1,054
March	91	37	555	155	200	0	522	399	91	2,051	860
April	85	0	511	122	215	0	427	426	85	1,871	740
May	179	0	601	116	236	0	222	422	54	1,830	897
June	115	0	593	94	215	72	537	361	110	2,096	820
July	159	0	660	108	327	69	910	356	95	2,685	965
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	69	1,943	677
October	249	7	494	61	242	108	313	504	106	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	265	88	462	399	73	1,690	421
AVERAGE	**170**	**26**	**552**	**92**	**248**	**35**	**514**	**412**	**97**	**2,146**	**854**
1983 January	204	0	282	47	255	43	186	324	43	1,384	533
February	104	0	214	9	217	0	92	371	28	1,035	326
March	63	0	103	0	138	0	121	425	173	1,023	183
April	228	0	180	(s)	210	0	186	508	125	1,438	409
May	284	0	122	12	324	37	352	444	69	1,645	419
June	300	0	175	40	502	38	402	335	146	1,938	515
July	282	0	182	58	464	112	525	431	187	2,240	599
August	370	0	426	45	416	213	464	477	230	2,641	866
September	413	0	587	21	516	86	324	472	208	2,627	1,074
October	261	0	638	16	368	12	307	337	169	2,108	938
November	165	0	545	56	318	21	214	435	135	1,891	789
December	141	0	569	45	291	9	329	408	163	1,957	823
AVERAGE	**235**	**0**	**336**	**29**	**335**	**48**	**294**	**414**	**140**	**1,832**	**625**
1984 January	242	0	463	114	278	0	243	547	51	1,939	828

1 Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

2 Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

3 Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

(s)

Footnotes continued on following page.

Crude Oil and Petroleum Product Imports (continued)

	Imports from Non-OPEC Sources [4]										
	Baha-mas	Canada	Mexico	Nether-lands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico	Virgin Islands	Other Non OPEC	Total Non OPEC	Total Imports
	Thousand Barrels per Day										
1973 AVERAGE	**174**	**1,325**	**16**	**585**	**255**	**15**	**99**	**329**	**465**	**3,263**	**6,256**
1974 AVERAGE	**164**	**1,070**	**8**	**511**	**251**	**8**	**90**	**391**	**340**	**2,832**	**6,112**
1975 AVERAGE	**152**	**846**	**71**	**332**	**242**	**14**	**90**	**406**	**300**	**2,454**	**6,056**
1976 AVERAGE	**118**	**599**	**87**	**275**	**274**	**31**	**88**	**422**	**353**	**2,247**	**7,313**
1977 AVERAGE	**171**	**517**	**179**	**211**	**289**	**126**	**105**	**466**	**550**	**2,614**	**8,807**
1978 AVERAGE	**160**	**467**	**318**	**229**	**253**	**180**	**94**	**429**	**484**	**2,613**	**8,363**
1979 AVERAGE	**147**	**538**	**439**	**231**	**190**	**202**	**92**	**431**	**548**	**2,819**	**8,456**
1980 AVERAGE	**78**	**455**	**533**	**225**	**176**	**176**	**88**	**388**	**491**	**2,609**	**6,909**
1981 AVERAGE	**74**	**447**	**522**	**197**	**133**	**375**	**62**	**327**	**534**	**2,672**	**5,996**
1982 January	58	513	425	179	106	346	62	334	452	2,474	5,332
February	67	537	476	221	120	181	38	362	508	2,510	4,807
March	43	437	503	189	118	294	62	307	480	2,433	4,484
April	82	360	476	184	166	247	36	266	690	2,507	4,378
May	77	419	766	152	95	516	47	302	607	2,981	4,811
June	32	481	797	148	129	557	58	322	708	3,231	5,327
July	64	536	783	158	118	433	38	376	698	3,204	5,890
August	80	443	853	145	106	520	24	317	650	3,137	5,244
September	92	493	897	195	89	631	51	278	746	3,472	5,414
October	45	459	682	148	109	666	52	262	801	3,222	5,306
November	51	553	860	212	90	623	81	334	706	3,508	5,744
December	88	561	689	174	102	438	48	336	480	2,916	4,606
AVERAGE	**65**	**482**	**685**	**175**	**112**	**456**	**50**	**316**	**627**	**2,968**	**5,113**
1983 January	68	536	849	218	73	315	40	299	588	2,988	4,372
February	92	592	722	179	81	193	50	192	554	2,655	3,691
March	86	488	760	187	78	240	43	162	563	2,606	3,629
April	167	452	981	216	85	421	20	183	781	3,306	4,744
May	135	501	944	153	108	483	42	235	651	3,252	4,898
June	137	576	831	181	120	424	48	252	712	3,281	5,218
July	69	633	849	191	103	369	37	364	836	3,450	5,690
August	142	540	891	194	90	461	40	313	725	3,395	6,036
September	137	523	832	251	82	472	33	308	822	3,461	6,088
October	164	539	771	172	106	414	48	370	565	3,149	5,256
November	143	542	717	144	110	334	55	440	793	3,278	5,168
December	119	592	718	153	113	429	22	271	613	3,030	4,986
AVERAGE	**122**	**542**	**822**	**187**	**96**	**381**	**40**	**283**	**684**	**3,156**	**4,988**
1984 January	152	624	705	277	54	382	53	390	772	3,408	5,347

Footnotes continued.

[4] Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

([s]) = Less than 500 barrels per day.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

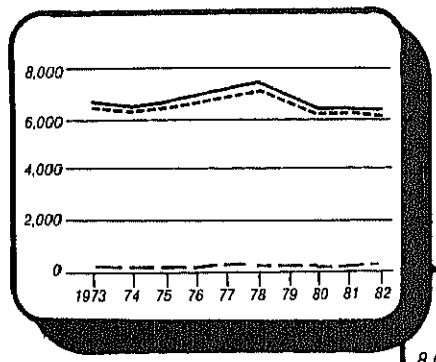
Total may not equal sum of components due to independent rounding.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See the last page of this section.

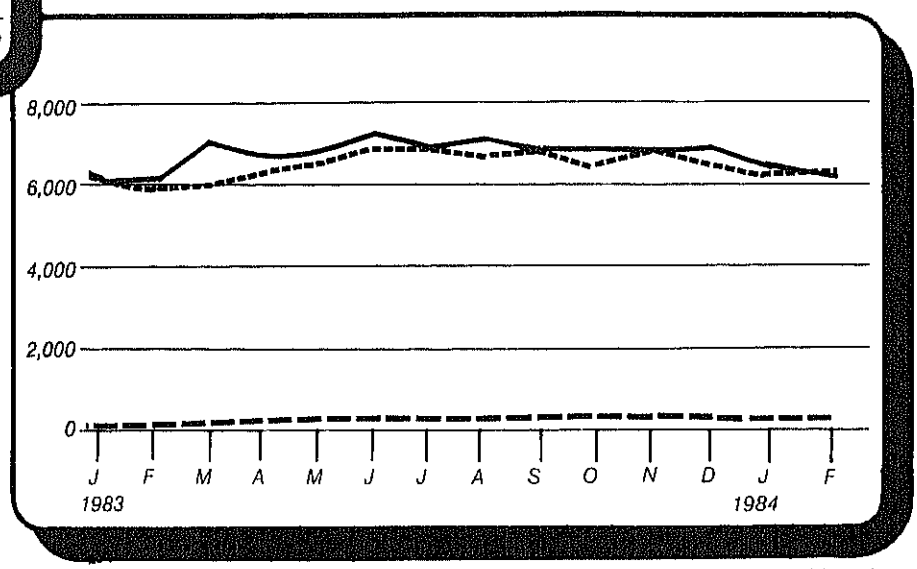
Motor Gasoline Supply and Disposition

(Thousand Barrels Per Day)



Annual

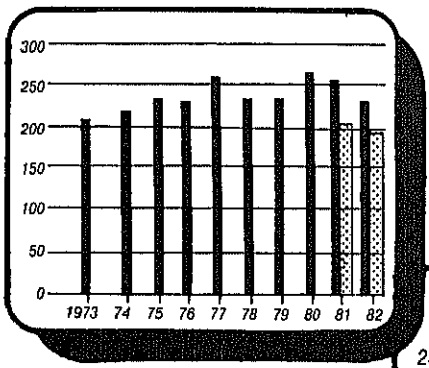
Legend
Product Supplied
Finished Gasoline Production
Finished Gasoline Imports



Monthly

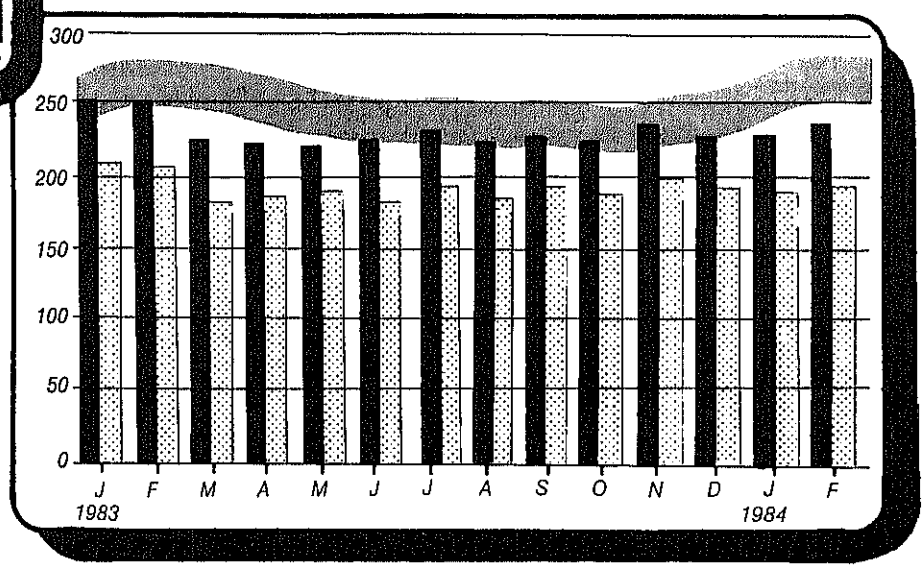
Motor Gasoline Ending Stocks

(Million Barrels)



Annual

Legend
Total Motor Gasoline[1]
Finished Motor Gasoline
Average Stock Range[2]



Monthly

[1] Includes finished motor gasoline blending components
[2] Level and width of Average Stock Range for total motor gasoline based on 3 years of data, July 80-June 83. See Explanatory Note 6.

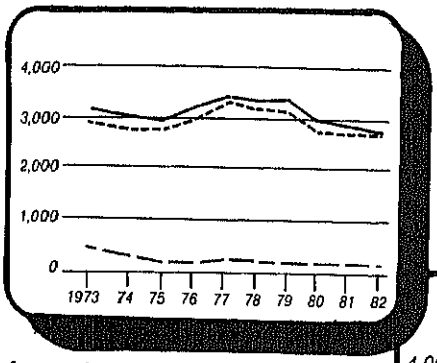
Finished Motor Gasoline Supply and Disposition

	Supply			Disposition				Ending Stocks[1]	
	Total Production	Imports[2]	Stock Withdrawal[2,3]	Exports	Products Supplied: Total	Products Supplied: Unleaded[4]	Products Supplied: Unleaded	Total Motor Gasoline[5]	Finished Motor Gasoline
	Thousand Barrels per Day						Percent of Total	Million Barrels	
1973 AVERAGE	**6,535**	**134**	**9**	**4**	**6,674**	**NA**	**NA**	**209**	
1974 AVERAGE	**6,360**	**204**	**-24**	**2**	**6,537**	**NA**	**NA**	**[6] 218**	
1975 AVERAGE	**6,520**	**184**	**[6] -28**	**2**	**6,675**	**NA**	**NA**	**235**	
1976 AVERAGE	**6,841**	**131**	**10**	**3**	**6,978**	**NA**	**NA**	**231**	
1977 AVERAGE	**7,033**	**217**	**-72**	**2**	**7,177**	**1,976**	**27.5**	**258**	
1978 AVERAGE	**7,169**	**190**	**54**	**1**	**7,412**	**2,521**	**34.0**	**238**	
1979 AVERAGE	**6,852**	**181**	**2**	**(s)**	**7,034**	**2,798**	**39.8**	**237**	
1980 AVERAGE	**6,506**	**140**	**-66**	**1**	**6,579**	**3,067**	**46.6**	**[6] 261**	
1981 AVERAGE[7]	**6,405**	**157**	**[6] 28**	**2**	**6,588**	**3,264**	**49.5**	**253**	
1982 January	6,167	128	-316	18	5,961	3,067	51.5	261	213
February	5,899	133	172	8	6,196	3,210	51.8	257	208
March	5,994	183	334	44	6,466	3,358	51.9	247	198
April	6,095	185	650	33	6,897	3,495	50.7	221	179
May	6,319	182	177	23	6,655	3,415	51.3	214	173
June	6,754	230	-134	14	6,835	3,565	52.2	219	177
July	6,768	225	-178	24	6,790	3,577	52.7	226	183
August	6,419	291	-81	16	6,614	3,526	53.3	227	185
September	6,527	223	-198	22	6,531	3,404	52.1	234	191
October	6,262	185	-42	15	6,391	3,351	52.4	234	192
November	6,273	211	101	11	6,574	3,451	52.5	230	189
December	6,542	178	-165	7	6,549	3,485	53.2	[6] 235	[6] 194
AVERAGE	**6,338**	**197**	**25**	**20**	**6,539**	**3,409**	**52.1**		
1983 January	6,020	148	[6] -186	(s)	5,981	3,352	56.0	251	208
February	5,848	142	32	(s)	6,022	3,257	54.1	251	207
March	5,897	205	765	23	6,843	3,620	52.9	224	184
April	6,202	273	27	1	6,501	3,505	53.9	221	183
May	6,386	284	-128	1	6,540	3,547	54.2	225	187
June	6,646	265	118	22	7,008	3,796	54.2	223	183
July	6,704	297	-210	18	6,773	3,752	55.4	231	190
August	6,539	260	159	13	6,946	3,836	55.2	226	185
September	6,582	285	-160	14	6,693	3,671	54.8	230	190
October	6,188	335	60	2	6,581	3,698	56.2	228	188
November	6,636	269	-274	2	6,629	3,714	56.0	236	196
December	6,314	217	340	25	6,846	3,967	57.9	222	185
AVERAGE	**6,332**	**249**	**47**	**10**	**6,617**	**3,646**	**55.1**		
1984 January*	R 6,037	R 233	R -1	1	R 6,268	3,606	57.5	R 225	R 186
February**	*6,252*	*229*	*-355*	NA	*6,114*	NA	NA	*233*	*194*
AVERAGE	**6,141**	**231**	**-172**	**NA**	**6,193**	**NA**	**NA**		

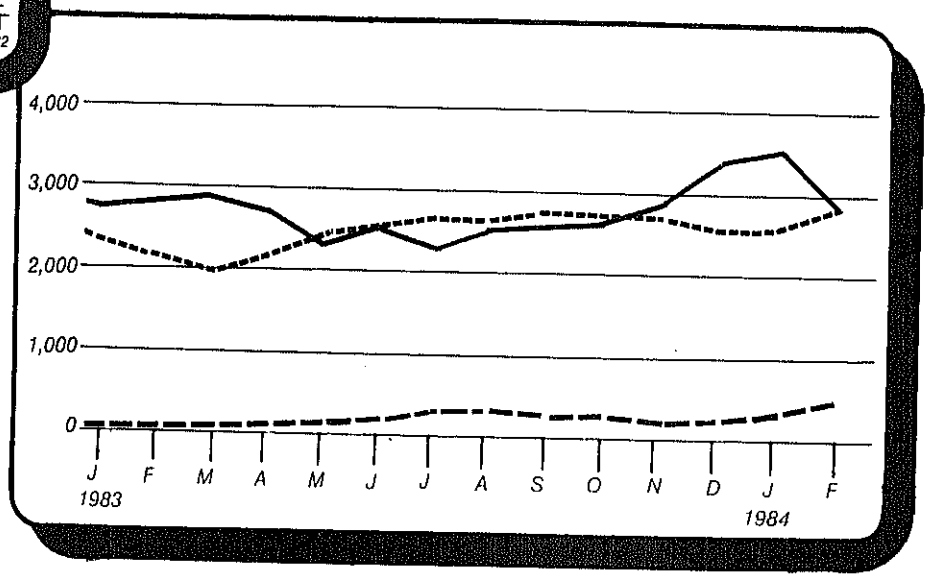
[1] Stocks are totals as of end of period.
[2] Beginning in 1981, excludes blending components.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] Includes gasohol.
[5] Includes motor gasoline blending components.
[6] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[7] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.3.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



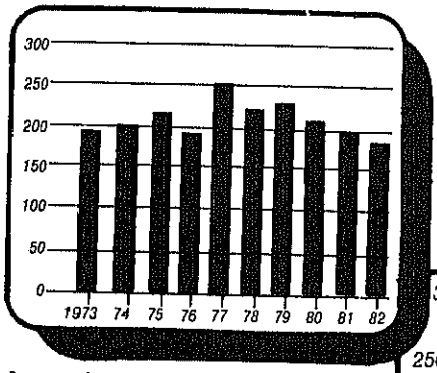
Annual



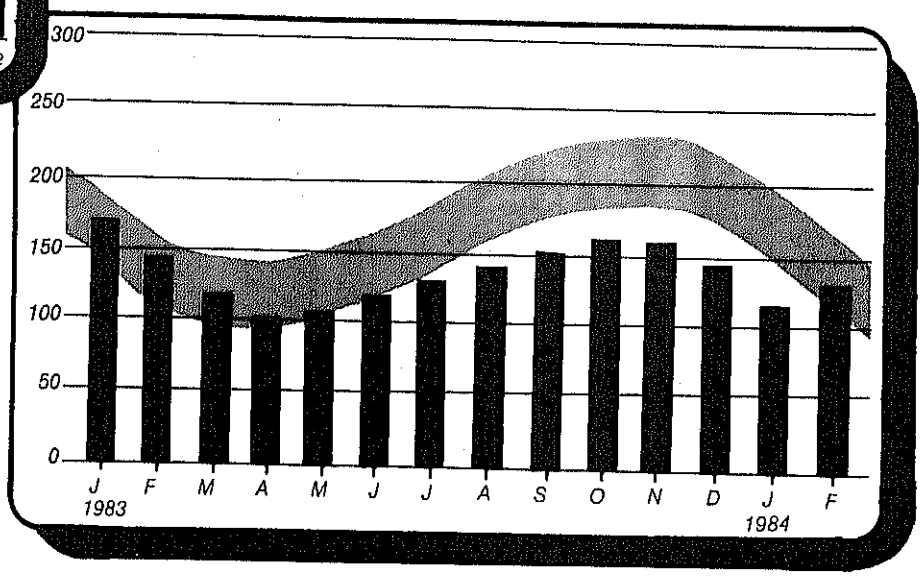
Monthly

Distillate Fuel Oil Ending Stocks

(Million Barrels)



Annual



Monthly

¹ Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data, July 80-July 83. See Explanatory Note 6.

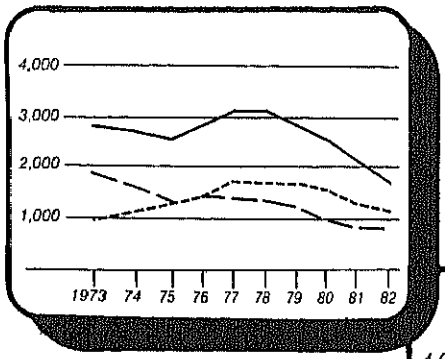
Distillate Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**2,822**	**392**	**-115**	**2**	**9**	**3,092**	**196**
1974 AVERAGE	**2,669**	**289**	**-9**	**2**	**2**	**2,948**	**[4] 200**
1975 AVERAGE	**2,654**	**155**	**[4] 40**	**2**	**1**	**2,851**	**209**
1976 AVERAGE	**2,924**	**146**	**62**	**1**	**†**	**3,133**	**186**
1977 AVERAGE	**3,278**	**250**	**-176**	**1**	**†**	**3,352**	**250**
1978 AVERAGE	**3,167**	**173**	**93**	**1**	**3**	**3,432**	**216**
1979 AVERAGE	**3,153**	**193**	**-34**	**1**	**3**	**3,311**	**229**
1980 AVERAGE	**2,662**	**142**	**64**	**1**	**3**	**2,866**	**[4] 205**
1981 AVERAGE[5]	**2,613**	**173**	**[4] 38**	**10**	**5**	**2,829**	**192**
1982 January	2,591	97	876	10	90	3,484	164
February	2,427	132	605	11	90	3,085	147
March	2,288	48	682	10	84	2,945	126
April	2,358	59	612	13	64	2,978	108
May	2,618	74	-183	10	75	2,444	114
June	2,729	102	-335	10	55	2,452	124
July	2,734	125	-789	11	24	2,058	148
August	2,507	80	-339	10	40	2,218	159
September	2,657	61	-85	12	139	2,507	161
October	2,838	91	-289	8	66	2,581	170
November	2,860	145	-514	8	24	2,475	186
December	2,655	109	225	10	143	2,855	[4] 179
AVERAGE	**2,606**	**93**	**35**	**10**	**74**	**2,671**	
1983 January	2,314	58	[4] 561	NA	173	2,760	168
February	2,136	58	742	NA	105	2,832	147
March	1,991	42	926	NA	59	2,900	119
April	2,169	73	518	NA	47	2,713	103
May	2,444	141	-193	NA	50	2,341	109
June	2,545	175	-154	NA	40	2,526	114
July	2,600	259	-556	NA	55	2,248	131
August	2,612	302	-403	NA	43	2,467	144
September	2,725	253	-374	NA	37	2,568	155
October	2,682	255	-275	NA	55	2,606	163
November	2,679	189	65	NA	54	2,879	161
December	2,524	212	675	NA	54	3,358	140
AVERAGE	**2,454**	**169**	**124**	**NA**	**64**	**2,682**	
1984 January*	R 2,585	R 270	R 676	NA	40	R 3,490	R 119
February**	*2,831*	*457*	*-447*	NA	NA	*2,788*	*130*
AVERAGE	**2,704**	**360**	**133**	**NA**	**NA**	**3,150**	

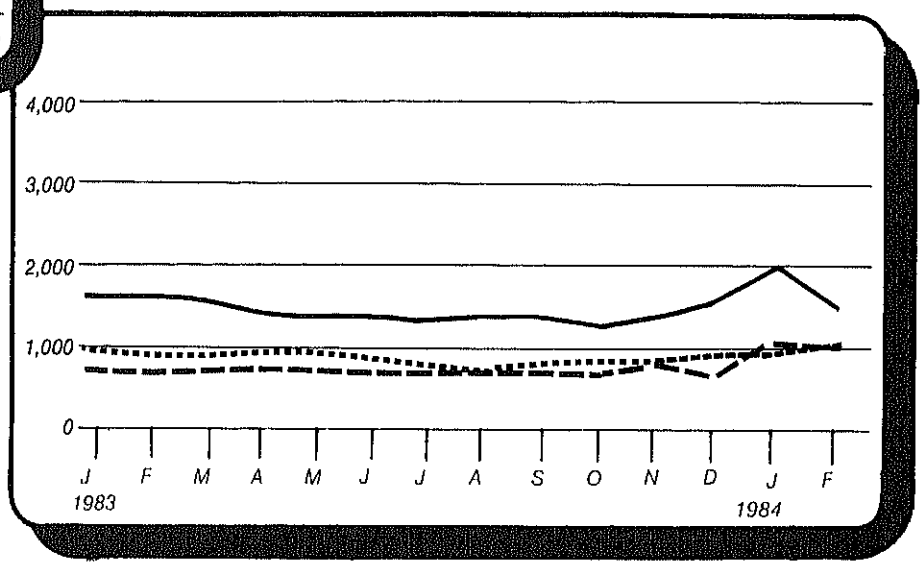
[1] Stocks are totals as of end of period.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Beginning in January 1984, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.
[4] In January 1975, 1981, and 1984, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.4.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



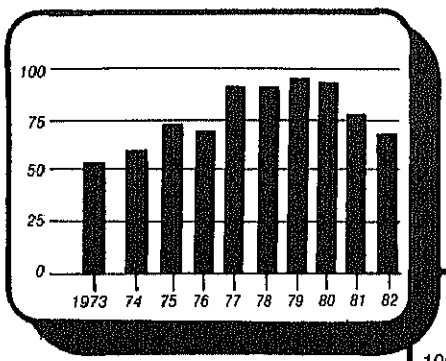
Annual

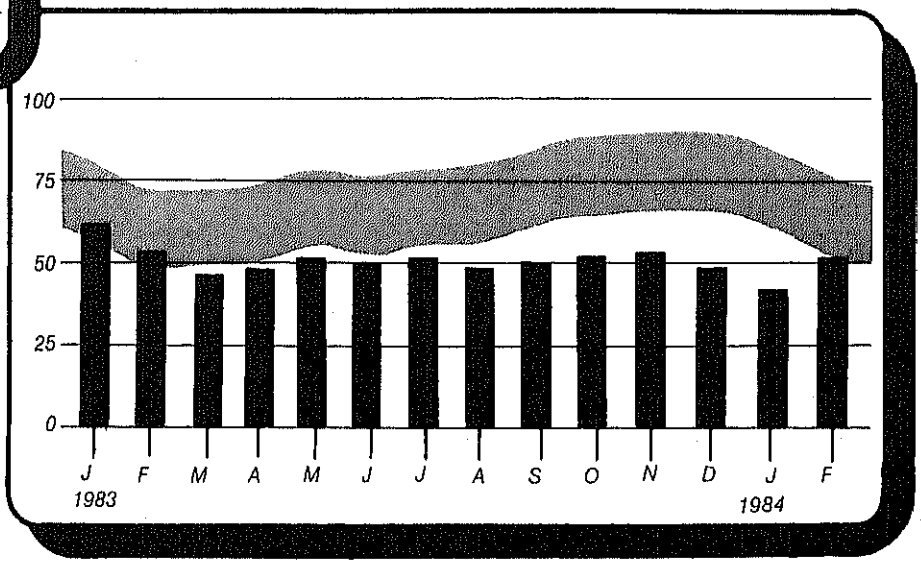


Monthly

Residual Fuel Oil Ending Stocks

(Million Barrels)





Monthly

[1] Level and width of Average Stock Range for residual fuel oil based on 3 years of data, July 80-June 83. See Explanatory Note 6.

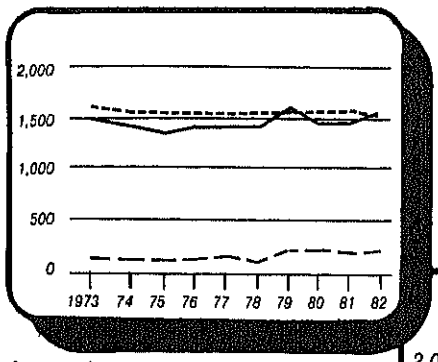
Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Crude Used Directly[3]	Exports	Products Supplied[3]	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**971**	**1,853**	**5**	**17**	**23**	**2,822**	**53**
1974 AVERAGE	**1,070**	**1,587**	**-17**	**13**	**14**	**2,639**	**[4] 60**
1975 AVERAGE	**1,235**	**1,223**	**[4] 2**	**15**	**15**	**2,462**	**74**
1976 AVERAGE	**1,377**	**1,413**	**5**	**17**	**12**	**2,801**	**72**
1977 AVERAGE	**1,754**	**1,359**	**-48**	**13**	**6**	**3,071**	**90**
1978 AVERAGE	**1,667**	**1,355**	**-1**	**13**	**13**	**3,023**	**90**
1979 AVERAGE	**1,687**	**1,151**	**-15**	**12**	**9**	**2,826**	**96**
1980 AVERAGE	**1,580**	**939**	**10**	**12**	**33**	**2,508**	**[4] 92**
1981 AVERAGE[5]	**1,321**	**800**	**[4] 37**	**48**	**118**	**2,088**	**78**
1982 January	1,235	831	301	53	235	2,185	69
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,903	58
April	1,166	788	150	52	234	1,923	54
May	1,128	742	-172	52	191	1,560	59
June	1,074	652	-57	50	217	1,501	61
July	1,028	657	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	62
October	955	783	-57	43	234	1,490	64
November	989	837	-94	43	182	1,591	66
December	989	747	6	43	186	1,598	[4] 66
AVERAGE	**1,070**	**776**	**32**	**48**	**209**	**1,716**	
1983 January	935	691	**[4] 243**	NA	294	1,574	61
February	857	632	270	NA	191	1,568	53
March	833	686	220	NA	169	1,569	46
April	942	743	-10	NA	310	1,364	47
May	930	709	-139	NA	190	1,310	51
June	832	676	28	NA	219	1,317	50
July	771	682	-58	NA	90	1,306	52
August	706	705	115	NA	165	1,362	48
September	815	690	-47	NA	134	1,324	50
October	799	634	-56	NA	153	1,224	51
November	848	777	-101	NA	167	1,358	54
December	893	646	173	NA	141	1,570	49
AVERAGE	**846**	**689**	**52**	**NA**	**185**	**1,403**	
1984 January*	R 953	R 1,061	R 119	NA	151	R 1,981	R 45
February**	*1,057*	*994*	*-375*	NA	NA	*1,521*	*52*
AVERAGE	**1,003**	**1,028**	**-120**	**NA**	**NA**	**1,758**	

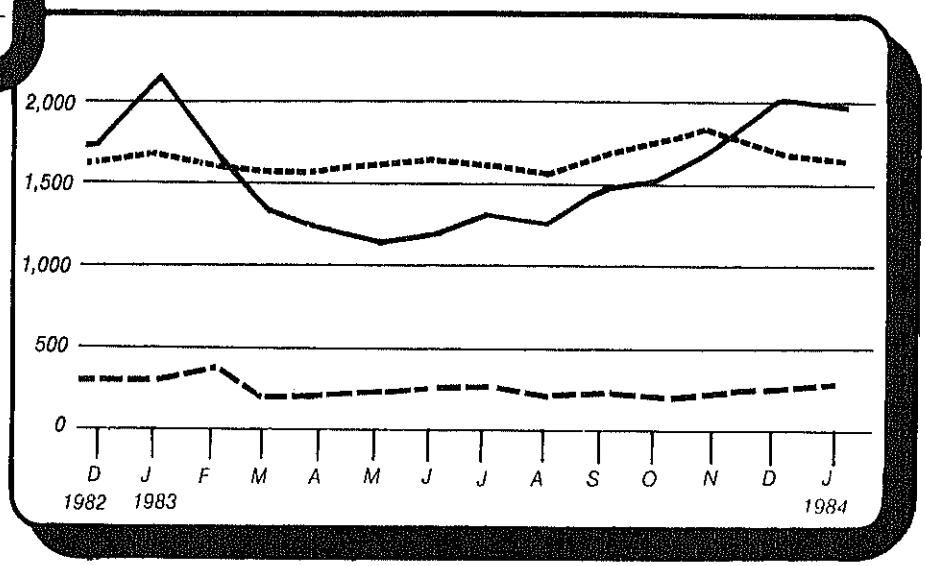
[1] Stocks are totals as of end of period.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.
[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
[5] Beginning in January 1981, survey forms were modified. See Explanatory Note 12.
* See Explanatory Note 9.4.
** Italics denote estimates based upon preliminary data. See Explanatory Note 8.
R = Revised data. NA = Not available. (s) = Less than 500 barrels per day.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



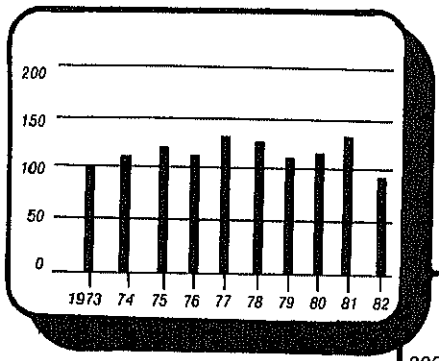
Annual



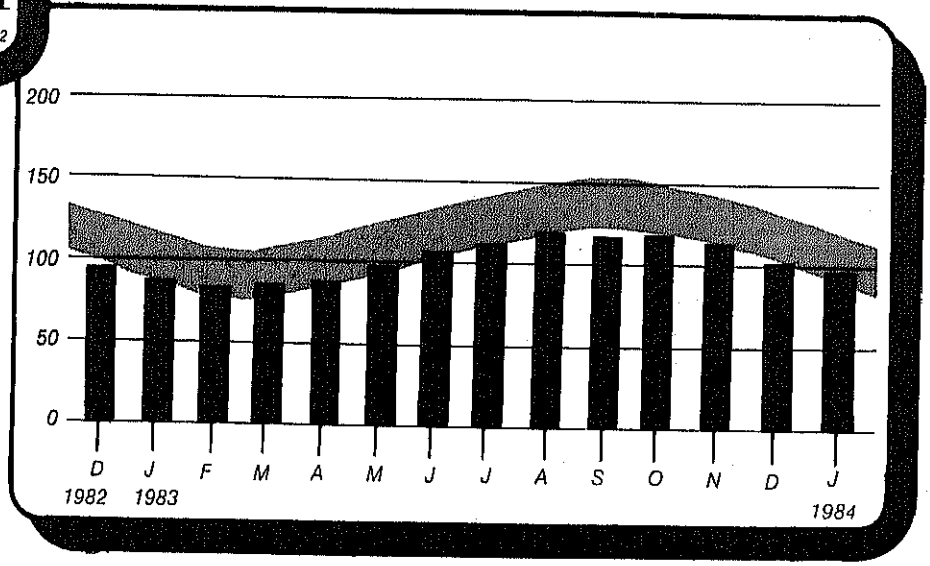
Monthly

Liquefied Petroleum Gases Ending Stocks

(Million Barrels)



Annual



Monthly

[1] Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data, July 80-June 83. See Explanatory Note 6.

Liquefied Petroleum Gases Supply and Disposition

	Supply			Disposition			Ending Stocks[1]
	Total Production	Imports	Stock Withdrawal[2]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**1,600**	**132**	**-35**	**220**	**27**	**1,449**	**99**
1974 AVERAGE	**1,565**	**123**	**-38**	**220**	**25**	**1,406**	[3] 113
1975 AVERAGE	**1,527**	**112**	[3] **-35**	**246**	**26**	**1,333**	**125**
1976 AVERAGE	**1,535**	**130**	**24**	**260**	**25**	**1,404**	**116**
1977 AVERAGE	**1,566**	**161**	**-55**	**233**	**18**	**1,422**	**136**
1978 AVERAGE	**1,537**	**123**	**12**	**239**	**20**	**1,413**	**132**
1979 AVERAGE	**1,556**	**217**	**70**	**236**	**15**	**1,592**	**111**
1980 AVERAGE	**1,535**	**216**	**-27**	**233**	**21**	**1,469**	[3] 120
1981 AVERAGE	**1,571**	**244**	[3] -18	**289**	**42**	**1,466**	135
1982 January	1,565	314	443	391	67	1,863	121
February	1,466	291	243	327	51	1,621	114
March	1,544	223	211	289	74	1,615	108
April	1,506	188	98	257	77	1,458	105
May	1,565	186	-71	234	43	1,403	107
June	1,515	192	-86	262	106	1,254	109
July	1,476	227	-13	253	37	1,399	110
August	1,511	125	-45	254	61	1,276	111
September	1,538	247	37	274	85	1,463	110
October	1,517	194	97	306	81	1,421	107
November	1,542	267	175	363	37	1,583	102
December	1,580	258	256	395	56	1,642	[3] 94
AVERAGE	**1,528**	**226**	**111**	**300**	**65**	**1,499**	
1983 January	1,662	240	[3] 618	313	118	2,088	84
February	1,560	305	84	237	76	1,636	81
March	1,517	166	-51	189	127	1,316	83
April	1,531	124	-107	198	116	1,232	86
May	1,545	167	-326	207	84	1,094	96
June	1,593	172	-333	205	59	1,169	106
July	1,571	191	-206	217	55	1,284	112
August	1,505	160	-183	229	29	1,225	118
September	1,625	178	-23	236	86	1,457	119
October	1,688	160	-61	268	32	1,487	121
November	1,784	180	78	361	33	1,648	118
December	1,644	247	575	358	66	2,043	[3] 101
AVERAGE	**1,602**	**190**	**6**	**252**	**73**	**1,473**	
1984 January*	1,610	269	[3] 470	333	23	1,993	93

[1] Stocks are totals as of end of period.
[2] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[3] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
* See Explanatory Note 9.5.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Other Petroleum Products[1] Supply and Disposition

	Supply			Disposition			Ending Stocks[2]
	Total Production	Imports	Stock Withdrawal[3]	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						Million Barrels
1973 AVERAGE	**3,693**	**502**	**-9**	**750**	**166**	**3,270**	**208**
1974 AVERAGE	**3,558**	**432**	**-28**	**665**	**174**	**3,123**	**[4] 218**
1975 AVERAGE	**3,424**	**277**	**[4] -2**	**537**	**160**	**3,002**	**219**
1976 AVERAGE	**3,643**	**206**	**-5**	**524**	**175**	**3,145**	**220**
1977 AVERAGE	**3,912**	**205**	**-27**	**514**	**165**	**3,410**	**230**
1978 AVERAGE	**4,046**	**166**	**14**	**492**	**167**	**3,568**	**225**
1979 AVERAGE	**4,153**	**195**	**-37**	**352**	**209**	**3,749**	**238**
1980 AVERAGE	**3,956**	**210**	**-23**	**311**	**198**	**3,634**	**[4] 247**
1981 AVERAGE	**3,739**	**226**	**[4] 46**	**723**	**199**	**3,088**	**282**
1982 January	3,171	269	-7	624	180	2,631	282
February	3,403	305	-153	663	138	2,755	287
March	3,466	243	-191	725	161	2,631	293
April	3,408	309	73	796	204	2,790	290
May	3,317	318	184	824	210	2,785	285
June	3,547	315	123	812	216	2,954	281
July	3,660	408	-1	856	187	3,023	281
August	3,583	346	217	743	202	3,201	274
September	3,533	375	105	749	213	3,051	271
October	3,529	383	244	915	266	2,976	264
November	3,498	423	-28	837	269	2,786	264
December	3,324	313	366	885	275	2,842	[4] 253
AVERAGE	**3,453**	**334**	**80**	**787**	**211**	**2,869**	
1983 January	3,222	297	[4] -371	570	271	2,307	271
February	3,270	287	-1	680	232	2,645	271
March	3,400	298	-94	570	249	2,786	273
April	3,363	377	3	596	247	2,901	273
May	3,448	364	26	694	242	2,902	273
June	3,674	427	99	715	292	3,197	270
July	3,703	393	106	757	209	3,237	266
August	3,774	435	23	689	242	3,302	266
September	3,861	460	-31	768	236	3,287	267
October	3,579	427	-124	701	195	2,985	270
November	3,560	442	101	912	238	2,955	267
December	3,106	450	387	877	257	2,808	[4] 255
AVERAGE	**3,498**	**388**	**10**	**711**	**242**	**2,943**	
1984 January*	3,391	486	[4] -177	561	207	2,931	253

[1] Includes pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.
[2] Stocks are totals as of end of period.
[3] A negative number indicates an increase in stocks and a positive number indicates a decrease.
[4] In January 1975, 1981, and 1983, numerous respondents were added to surveys affecting stocks reported and stock withdrawal calculations. See Explanatory Note 10.
* See Explanatory Note 9.6.
Note: Geographic coverage is the 50 United States and the District of Columbia.
Total may not equal sum of components due to independent rounding.
Source: See the last page of this section.

Sources

1. 1973 through 1976: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual."

2. 1977 through 1980: Energy Information Administration (EIA), *Energy Data Reports*, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual," and unleaded gasoline data from *Monthly Petroleum Statistics Report*.

3. January 1981 through December 1982: EIA, *Petroleum Supply Annual*.

4. January 1983 through January 1984: Detailed statistics in appropriate issues of the Petroleum Supply Monthly. (see Explanatory Notes 9.1 through 9.6).

5. February 1984: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).

6. January 1983 through February 1984: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies and the U.S. Geological Survey. (See Explanatory Note 3).

Detailed Statistics

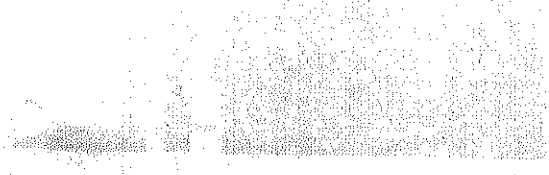


Table 1. U.S. Petroleum Balance, January 1984

	Current Month	
	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)		
Field Production		
(1) Alaska	E 53,962	1,741
(2) Lower 48 States	E 214,457	6,918
(3) Total U.S.	E 268,419	8,659
Net Imports		
(4) Imports (Gross Excluding SPR)	87,697	2,829
(5) SPR Imports	6,197	200
(6) Exports	4,739	153
(7) Imports (Net Including SPR)	89,156	2,876
Other Sources		
(8) SPR Withdrawal (+) or Addition (-)	-5,360	-173
(9) Other Stock Withdrawal (+) or Addition (-)	-5,236	-169
(10) Product Supplied and Losses	-2,025	-65
(11) Unaccounted for [1]	13,991	451
(12) Total Other Sources	1,370	44
(13) Crude Input to Refineries	356,945	11,579
(13) = (3) + (7) + (12)		
Natural Gas Plant Liquids (NGPL)		
(14) Field Production	49,146	1,585
(15) Imports [2]	596	19
(16) Stock Withdrawal (+) or Addition (-) [2]	244	8
(17) Total NGPL Supply	49,986	1,612
Other Liquids		
Unfinished Oils and Gasoline Blending Components, Total		
(18) Stock Withdrawal (+) or Addition (-)	-6,381	-206
(19) Imports	9,870	318
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,167	38
(21) Refinery Processing Gain [1]	14,859	479
(22) Crude Oil Product Supplied	1,989	64
(23) Total Other Liquids	21,504	694
(23) = (18) through (22)		
(24) Total Production of Products [3]	430,436	13,885
(24) = (13) + (17) + (23)		
Net Imports of Refined Products [3]		
(25) Imports (Gross)	61,388	1,980
(26) Exports	13,093	422
(27) Imports (Net)	48,295	1,558
(28) Total New Supply of Products	478,731	15,443
(28) = (24) + (27)		
(29) Refined Products Stock Withdrawal (+) or Addition (-) [3]	39,786	1,283
(30) Total Petroleum Products Supplied for Domestic Use	518,517	16,726
(30) = (28) + (29)		
(31) Finished Motor Gasoline	194,300	6,268
(32) Distillate Fuel Oil	108,177	3,490
(33) Residual Fuel Oil	61,398	1,981
(34) Liquefied Petroleum Gases	61,777	1,993
(35) Other[4]	90,875	2,931
(36) Crude Oil	1,989	64
(37) Total Product Supplied	518,517	16,726
(37) = (31) through (36)		
Ending Stocks, All Oils		
(38) Crude Oil and Lease Condensate (Excluding SPR)	348,412	--
(39) Strategic Petroleum Reserve (SPR)	384,449	--
(40) Unfinished Oils	110,814	--
(41) Gasoline Blending Components	40,587	--
(42) Pentanes Plus	8,521	--
(43) Finished Refined Products [3]	537,264	--
(44) Total Stocks	1,430,047	--

1 A balancing item.
2 Includes products in the pentanes plus category only.
3 For products included see Explanatory Note 9.7.
4 Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.
E = Estimated.
-- Not Applicable.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,419	0	93,895	-10,596	13,991	36	358,945	4,739	1,989	732,861
Natural Gas Liquids and LRGs	48,974	9,857	8,946	14,821	0	0	16,505	719	65,374	101,701
Pentanes Plus	8,929	0	596	244	0	0	6,173	(s)	3,596	8,521
Liquefied Petroleum Gases	40,045	9,857	8,350	14,577	0	0	10,332	719	61,777	93,180
Ethane	15,282	568	2,957	519	0	0	47	(s)	19,279	20,860
Propane	15,798	8,071	3,082	10,898	0	0	158	531	37,160	44,382
Normal Butane	6,170	1,225	1,403	2,134	0	0	6,557	189	4,187	18,255
Isobutane	2,795	-7	907	1,026	0	0	3,570	(s)	1,151	9,683
Other Liquids	1,167	0	9,870	-6,381	0	0	11,211	0	-6,555	151,401
Other Hydrocarbons and Alcohol	1,167	0	0	-22	0	0	1,145	0	0	307
Unfinished Oils	0	0	9,085	-3,316	0	0	7,916	0	-2,147	110,814
Motor Gasoline Blending Components	0	0	785	-3,022	0	0	2,171	0	-4,408	39,942
Aviation Gasoline Blending Components	0	0	0	-21	0	0	-21	0	0	338
Finished Petroleum Products	172	391,663	53,038	25,209	0	0	0	12,374	457,709	444,084
Finished Motor Gasoline	62	187,097	7,209	-43	0	0	0	25	194,300	185,538
Finished Leaded Motor Gasoline	44	77,603	3,088	1,812	0	0	0	25	82,522	92,272
Finished Unleaded Motor Gasoline	18	109,494	4,121	-1,855	0	0	0	0	111,778	93,266
Finished Aviation Gasoline	0	571	1	-141	0	0	0	0	431	2,432
Naphtha-Type Jet Fuel	0	5,559	438	-107	0	0	0	0	5,890	6,320
Kerosene-Type Jet Fuel	0	26,900	1,415	3,113	0	0	0	318	31,110	29,255
Kerosene	3	5,605	536	350	0	0	0	2	6,493	7,510
Distillate Fuel Oil	35	80,089	8,359	20,942	0	0	0	1,248	108,177	119,460
Residual Fuel Oil	0	29,532	32,883	3,678	0	0	0	4,695	61,398	45,430
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,532	848	147	0	0	0	194	4,333	1,565
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,212	0	-15	0	0	0	412	6,785	1,772
Special Naphthas	0	1,530	429	82	0	0	0	46	1,995	3,071
Lubricants	0	4,315	348	-271	0	0	0	303	4,088	12,346
Waxes	0	360	27	92	0	0	0	40	439	685
Petroleum Coke	0	13,565	0	-154	0	0	0	5,055	8,356	5,635
Asphalt and Road Oil	0	6,419	17	-2,270	0	0	0	5	4,161	21,062
Still Gas	0	16,907	0	0	0	0	0	0	16,907	0
Miscellaneous Products	72	2,470	530	-194	0	0	0	31	2,847	2,003
Total	318,732	401,520	165,749	23,053	13,991	36	386,661	17,832	518,517	1,430,047

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 268,419	0	93,895	-10,596	13,991	36	358,945	4,739	1,989	732,861
Natural Gas Liquids and LRGs	48,974	9,857	8,946	14,821	0	0	16,505	719	65,374	101,701
Pentanes Plus	8,929	0	596	244	0	0	6,173	(s)	3,596	8,521
Liquefied Petroleum Gases	40,045	9,857	8,350	14,577	0	0	10,332	719	61,777	93,180
Ethane	15,282	568	2,957	519	0	0	47	(s)	19,279	20,860
Propane	15,798	8,071	3,082	10,898	0	0	158	531	37,160	44,382
Normal Butane	6,170	1,225	1,403	2,134	0	0	6,557	189	4,187	18,255
Isobutane	2,795	-7	907	1,026	0	0	3,570	(s)	1,151	9,683
Other Liquids	1,167	0	9,870	-6,381	0	0	11,211	0	-6,555	151,401
Other Hydrocarbons and Alcohol	1,167	0	0	-22	0	0	1,145	0	0	307
Unfinished Oils	0	0	9,085	-3,316	0	0	7,916	0	-2,147	110,814
Motor Gasoline Blending Components	0	0	785	-3,022	0	0	2,171	0	-4,408	39,942
Aviation Gasoline Blending Components	0	0	0	-21	0	0	-21	0	0	338
Finished Petroleum Products	172	391,663	53,038	25,209	0	0	0	12,374	457,709	444,084
Finished Motor Gasoline	62	187,097	7,209	-43	0	0	0	25	194,300	185,538
Finished Leaded Motor Gasoline	44	77,603	3,088	1,812	0	0	0	25	82,522	92,272
Finished Unleaded Motor Gasoline	18	109,494	4,121	-1,855	0	0	0	0	111,778	93,266
Finished Aviation Gasoline	0	571	1	-141	0	0	0	0	431	2,432
Naphtha-Type Jet Fuel	0	5,559	438	-107	0	0	0	0	5,890	6,320
Kerosene-Type Jet Fuel	0	26,900	1,415	3,113	0	0	0	318	31,110	29,255
Kerosene	3	5,605	536	350	0	0	0	2	6,493	7,510
Distillate Fuel Oil	35	80,089	8,359	20,942	0	0	0	1,248	108,177	119,460
Residual Fuel Oil	0	29,532	32,883	3,678	0	0	0	4,695	61,398	45,430
Naphtha < 400 Deg. for Petro. Feed. Use	0	3,532	848	147	0	0	0	194	4,333	1,565
Other Oils > 400 Deg. for Petro. Feed. Use	0	7,212	0	-15	0	0	0	412	6,785	1,772
Special Naphthas	0	1,530	429	82	0	0	0	46	1,995	3,071
Lubricants	0	4,315	348	-271	0	0	0	303	4,088	12,346
Waxes	0	360	27	92	0	0	0	40	439	685
Petroleum Coke	0	13,565	0	-154	0	0	0	5,055	8,356	5,635
Asphalt and Road Oil	0	6,419	17	-2,270	0	0	0	5	4,161	21,062
Still Gas	0	16,907	0	0	0	0	0	0	16,907	0
Miscellaneous Products	72	2,470	530	-194	0	0	0	31	2,847	2,003
Total	318,732	401,520	165,749	23,053	13,991	36	386,661	17,832	518,517	1,430,047

1 Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1984 (Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,659	0	3,029	−342	451	1	11,579	153	64
Natural Gas Liquids and LRGs	1,580	318	289	478	0	0	532	23	2,109
Pentanes Plus	288	0	19	8	0	0	199	(s)	116
Liquefied Petroleum Gases	1,292	318	269	470	0	0	333	23	1,993
Ethane	493	18	95	17	0	0	2	(s)	622
Propane	510	260	99	352	0	0	5	17	1,199
Normal Butane	199	40	45	69	0	0	212	6	135
Isobutane	90	(s)	29	33	0	0	115	(s)	37
Other Liquids	38	0	318	−206	0	0	362	0	−211
Other Hydrocarbons and Alcohol	38	0	0	−1	0	0	37	0	0
Unfinished Oils	0	0	293	−107	0	0	255	0	−69
Motor Gasoline Blending Components	0	0	25	−97	0	0	70	0	−142
Aviation Gasoline Blending Components	0	0	0	−1	0	0	−1	0	0
Finished Petroleum Products	6	12,634	1,711	813	0	0	0	399	14,765
Finished Motor Gasoline	2	6,035	233	−1	0	0	0	1	6,268
Finished Leaded Motor Gasoline	1	2,503	100	58	0	0	0	1	2,662
Finished Unleaded Motor Gasoline	1	3,532	133	−60	0	0	0	0	3,606
Finished Aviation Gasoline	0	18	(s)	−5	0	0	0	0	14
Naphtha-Type Jet Fuel	0	179	14	−3	0	0	0	0	190
Kerosene-Type Jet Fuel	0	868	46	100	0	0	0	10	1,004
Kerosene	(s)	181	17	11	0	0	0	(s)	209
Distillate Fuel Oil	1	2,584	270	676	0	0	0	40	3,490
Residual Fuel Oil	0	953	1,061	119	0	0	0	151	1,981
Naphtha < 400 Deg. for Petro. Feed. Use	0	114	27	5	0	0	0	6	140
Other Oils > 400 Deg. for Petro. Feed. Use	0	233	0	(s)	0	0	0	13	219
Special Naphthas	0	49	14	3	0	0	0	1	64
Lubricants	0	139	11	−9	0	0	0	10	132
Waxes	0	12	1	3	0	0	0	1	14
Petroleum Coke	0	438	0	−5	0	0	0	163	270
Asphalt and Road Oil	0	207	1	−73	0	0	0	(s)	134
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	80	17	−6	0	0	0	1	92
Total	10,282	12,952	5,347	744	451	1	12,473	575	16,726

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels per Day)

Commodity	Supply					Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	E 8,659	0	3,029	-342	451	1	11,579	153	64
Natural Gas Liquids and LRGs	1,580	318	289	478	0	0	532	23	2,109
Pentanes Plus	288	0	19	8	0	0	199	(s)	116
Liquefied Petroleum Gases	1,292	318	269	470	0	0	333	23	1,993
Ethane	493	18	95	17	0	0	2	(s)	622
Propane	510	260	99	352	0	0	5	17	1,199
Normal Butane	199	40	45	69	0	0	212	6	135
Isobutane	90	(s)	29	33	0	0	115	(s)	37
Other Liquids	38	0	318	-206	0	0	362	0	-211
Other Hydrocarbons and Alcohol	38	0	0	-1	0	0	37	0	0
Unfinished Oils	0	0	293	-107	0	0	255	0	-69
Motor Gasoline Blending Components	0	0	25	-97	0	0	70	0	-142
Aviation Gasoline Blending Components	0	0	0	-1	0	0	-1	0	0
Finished Petroleum Products	6	12,634	1,711	813	0	0	0	399	14,765
Finished Motor Gasoline	2	6,035	233	-1	0	0	0	1	6,268
Finished Leaded Motor Gasoline	1	2,503	100	58	0	0	0	1	2,662
Finished Unleaded Motor Gasoline	1	3,532	133	-60	0	0	0	0	3,606
Finished Aviation Gasoline	0	18	(s)	-5	0	0	0	0	14
Naphtha-Type Jet Fuel	0	179	14	-3	0	0	0	0	190
Kerosene-Type Jet Fuel	0	868	46	100	0	0	0	10	1,004
Kerosene	(s)	181	17	11	0	0	0	(s)	209
Distillate Fuel Oil	1	2,584	270	676	0	0	0	40	3,490
Residual Fuel Oil	0	953	1,061	119	0	0	0	151	1,981
Naphtha < 400 Deg. for Petro. Feed. Use	0	114	27	5	0	0	0	6	140
Other Oils > 400 Deg. for Petro. Feed. Use	0	233	0	(s)	0	0	0	13	219
Special Naphthas	0	49	14	3	0	0	0	1	64
Lubricants	0	139	11	-9	0	0	0	10	132
Waxes	0	12	1	3	0	0	0	1	14
Petroleum Coke	0	438	0	-5	0	0	0	163	270
Asphalt and Road Oil	0	207	1	-73	0	0	0	(s)	134
Still Gas	0	545	0	0	0	0	0	0	545
Miscellaneous Products	2	80	17	-6	0	0	0	1	92
Total	10,282	12,952	5,347	744	451	1	12,473	575	16,726

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 6. PAD District I, Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 2,303	0	26,057	-530	290	3,861	2	31,979	0	0	15,587
Natural Gas Liquids and LRGs	961	1,130	733	1,496	0	4,195	0	92	47	8,376	3,180
Liquefied Petroleum Gases	849	1,130	282	1,488	0	4,195	0	66	47	7,831	3,136
Pentanes Plus	112	0	451	8	0	0	0	26	0	545	44
Other Liquids	157	0	2,754	515	0	603	0	4,751	0	-722	17,555
Other Hydrocarbons and Alcohol	157	0	0	-31	0	0	0	126	0	0	81
Unfinished Oils	0	0	2,754	929	0	288	0	4,798	0	-827	12,754
Motor Gasoline Blending Components	0	0	0	-370	0	315	0	-160	0	105	4,707
Aviation Gasoline Blending Components	0	0	0	-13	0	0	0	-13	0	0	13
Finished Petroleum Products	48	37,461	45,694	23,522	0	73,392	0	0	794	179,323	142,510
Finished Motor Gasoline	48	17,222	5,489	2,758	0	38,818	0	0	22	64,313	56,725
Finished Leaded Motor Gasoline	30	5,623	2,169	2,071	0	14,616	0	0	22	24,487	27,183
Finished Unleaded Motor Gasoline	18	11,599	3,320	687	0	24,202	0	0	0	39,826	29,542
Finished Aviation Gasoline	0	0	1	30	0	80	0	0	0	111	502
Naphtha-Type Jet Fuel	0	653	438	-332	0	520	0	0	0	1,279	803
Kerosene-Type Jet Fuel	0	872	1,318	1,927	0	8,930	0	0	97	12,950	7,154
Kerosene	0	697	530	367	0	966	0	0	2	2,559	3,081
Distillate Fuel Oil	0	8,896	7,782	14,423	0	21,708	0	0	1	52,808	43,395
Residual Fuel Oil	0	4,606	29,779	4,022	0	1,139	0	0	250	39,295	20,970
Naphtha and Other Oils for Petro. Feed.	0	358	6	-83	0	9	0	0	45	245	139
Special Naphthas	0	44	119	134	0	196	0	0	4	489	753
Lubricants	0	586	204	-135	0	470	0	0	80	1,045	3,459
Waxes	0	72	17	12	0	6	0	0	6	101	142
Petroleum Coke	0	1,093	0	275	0	0	0	0	269	1,099	807
Asphalt and Road Oil	0	556	0	159	0	37	0	0	1	751	4,245
Still Gas	0	1,648	0	0	0	0	0	0	0	1,648	0
Miscellaneous Products	0	158	11	-35	0	513	0	0	17	630	335
Total	3,469	38,591	75,237	25,003	290	82,051	2	36,822	840	186,977	178,832

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 32,404	0	13,452	-1,224	34,687	3,058	3	82,213	162	0	73,559
Natural Gas Liquids and LRGs	9,462	1,972	5,997	3,151	0	4,662	0	6,098	(s)	19,146	31,688
Liquefied Petroleum Gases	7,669	1,972	5,997	3,401	0	4,312	0	4,499	(s)	18,852	28,573
Pentanes Plus	1,793	0	0	-250	0	350	0	1,599	(s)	294	3,115
Other Liquids	200	0	346	430	0	-3	0	1,614	0	-641	25,639
Other Hydrocarbons and Alcohol	200	0	0	2	0	0	0	202	0	0	129
Unfinished Oils	0	0	346	251	0	-3	0	614	0	-20	17,966
Motor Gasoline Blending Components	0	0	0	158	0	0	0	779	0	-621	7,481
Aviation Gasoline Blending Components	0	0	0	19	0	0	0	19	0	0	63
Finished Petroleum Products	16	90,862	583	2,223	0	17,704	0	0	155	111,233	120,428
Finished Motor Gasoline	0	50,514	22	390	0	11,184	0	0	(s)	62,109	55,669
Finished Leaded Motor Gasoline	0	22,288	19	359	0	6,000	0	0	(s)	28,665	29,256
Finished Unleaded Motor Gasoline	0	28,226	3	31	0	5,184	0	0	0	33,444	26,413
Finished Aviation Gasoline	0	96	0	-40	0	172	0	0	0	228	573
Naphtha-Type Jet Fuel	0	873	0	186	0	-72	0	0	0	987	1,473
Kerosene-Type Jet Fuel	0	4,623	0	216	0	2,424	0	0	100	7,163	6,569
Kerosene	0	1,324	0	21	0	132	0	0	0	1,477	1,522
Distillate Fuel Oil	0	19,899	108	3,111	0	3,645	0	0	1	26,761	37,146
Residual Fuel Oil	0	2,167	309	329	0	-80	0	0	0	2,725	3,624
Naphtha and Other Oils for Petro. Feed.	0	629	19	101	0	0	0	0	9	740	154
Special Naphthas	0	413	30	104	0	88	0	0	9	625	500
Lubricants	0	871	9	-86	0	140	0	0	15	920	2,187
Waxes	0	10	4	28	0	0	0	0	(s)	42	57
Petroleum Coke	0	3,251	0	-227	0	0	0	0	17	3,007	1,042
Asphalt and Road Oil	0	2,512	13	-1,794	0	84	0	0	2	813	9,660
Still Gas	0	3,438	0	0	0	0	0	0	0	3,438	0
Miscellaneous Products	16	242	70	-116	0	-13	0	0	2	197	252
Total	42,082	92,834	20,379	4,580	34,687	25,421	3	89,925	317	129,738	251,314

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 128,845	0	48,239	-3,444	-20,413	14,979	6	168,178	0	22	544,915
Natural Gas Liquids and LRGs	34,737	5,630	845	9,216	0	-7,777	0	9,123	473	33,055	64,001
Liquefied Petroleum Gases	28,895	5,630	803	8,727	0	-7,602	0	4,858	473	31,122	58,881
Pentanes Plus	5,842	0	42	489	0	-175	0	4,265	0	1,933	5,120
Other Liquids	486	0	5,776	-7,032	0	-702	0	3,095	0	-4,567	69,151
Other Hydrocarbons and Alcohol	486	0	0	5	0	0	0	491	0	0	94
Unfinished Oils	0	0	5,471	-5,532	0	-387	0	621	0	-1,069	51,759
Motor Gasoline Blending Components	0	0	304	-1,491	0	-315	0	1,997	0	-3,499	17,082
Aviation Gasoline Blending Components	0	0	0	-14	0	0	0	-14	0	0	216
Finished Petroleum Products	101	181,183	4,924	1,323	0	-94,010	0	0	4,851	88,670	113,887
Finished Motor Gasoline	10	81,960	737	-960	0	-51,937	0	0	(s)	29,809	45,488
Finished Leaded Motor Gasoline	10	33,235	478	211	0	-21,556	0	0	(s)	12,378	22,097
Finished Unleaded Motor Gasoline	0	48,725	258	-1,171	0	-30,381	0	0	0	17,431	23,391
Finished Aviation Gasoline	0	267	0	-78	0	-158	0	0	0	31	801
Naphtha-Type Jet Fuel	0	2,301	0	-105	0	-744	0	0	0	1,452	2,256
Kerosene-Type Jet Fuel	0	13,859	0	158	0	-12,174	0	0	0	1,843	10,029
Kerosene	3	3,264	6	-26	0	-1,098	0	0	(s)	2,149	2,615
Distillate Fuel Oil	35	37,821	245	3,075	0	-25,366	0	0	154	15,656	24,686
Residual Fuel Oil	0	11,820	2,366	-283	0	-1,059	0	0	1,561	11,283	11,760
Naphtha and Other Oils for Petro. Feed.	0	8,999	822	59	0	-9	0	0	481	9,390	2,518
Special Naphthas	0	1,012	264	-187	0	-284	0	0	32	773	1,606
Lubricants	0	2,572	37	-128	0	-554	0	0	175	1,753	5,141
Waxes	0	192	3	59	0	-6	0	0	32	216	428
Petroleum Coke	0	5,437	0	-132	0	0	0	0	2,406	2,899	1,539
Asphalt and Road Oil	0	1,856	1	-66	0	-121	0	[illegible]	(s)	1,669	3,827
Still Gas	0	7,941	0	0	0	0	0	0	0	7,941	0
Miscellaneous Products	53	1,882	444	-63	0	-500	0	0	10	1,805	1,193
Total	164,169	186,813	59,784	63	-20,413	-87,510	6	180,396	5,324	117,180	791,954

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 16,365	0	868	-269	-4,457	0	0	12,498	0	9	13,842
Natural Gas Liquids and LRGs	2,869	77	807	-39	0	-1,080	0	427	0	2,207	1,134
Liquefied Petroleum Gases	2,043	77	703	-38	0	-905	0	291	0	1,589	949
Pentanes Plus	826	0	103	-1	0	-175	0	136	0	617	185
Other Liquids	7	0	0	-207	0	0	0	-584	0	384	4,850
Other Hydrocarbons and Alcohol	7	0	0	0	0	0	0	7	0	0	0
Unfinished Oils	0	0	0	52	0	0	0	-457	0	509	2,518
Motor Gasoline Blending Components	0	0	0	-259	0	0	0	-134	0	-125	2,332
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	7	12,585	196	-817	0	340	0	0	3	12,307	12,737
Finished Motor Gasoline	4	6,433	55	-444	0	100	0	0	0	6,148	6,120
Finished Leaded Motor Gasoline	4	3,770	55	-271	0	-98	0	0	0	3,460	3,913
Finished Unleaded Motor Gasoline	0	2,663	(s)	-173	0	198	0	0	0	2,688	2,207
Finished Aviation Gasoline	0	11	0	17	0	-94	0	0	0	-66	44
Naphtha-Type Jet Fuel	0	384	0	39	0	-77	0	0	0	346	254
Kerosene-Type Jet Fuel	0	559	0	78	0	650	0	0	0	1,287	462
Kerosene	0	142	0	-13	0	0	0	0	0	129	41
Distillate Fuel Oil	0	3,350	115	-101	0	-239	0	0	0	3,125	3,418
Residual Fuel Oil	0	305	24	55	0	0	0	0	0	384	412
Naphtha and Other Oils for Petro. Feed.	0	0	0	0	0	0	0	0	2	-2	3
Special Naphthas	0	2	(s)	6	0	0	0	0	0	8	6
Lubricants	0	37	(s)	1	0	0	0	0	1	37	229
Waxes	0	8	0	0	0	0	0	0	0	8	0
Petroleum Coke	0	281	0	-1	0	0	0	0	0	280	131
Asphalt and Road Oil	0	587	0	-457	0	0	0	0	1	129	1,610
Still Gas	0	453	0	0	0	0	0	0	0	453	0
Miscellaneous Products	3	33	(s)	3	0	0	0	0	0	39	7
Total	19,248	12,662	1,871	-1,332	-4,457	-740	0	12,341	3	14,907	32,563

[1] Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, January 1984
(Thousand Barrels)

Commodity	Supply						Disposition				Ending Stocks
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil[1]	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	
Crude Oil (including lease condensate)	E 88,502	0	5,278	-5,129	3,884	-21,898	25	64,077	4,577	1,958	84,958
Natural Gas Liquids and LRGs	945	1,048	564	997	0	0	0	765	200	2,590	1,698
Liquefied Petroleum Gases	589	1,048	564	999	0	0	0	618	200	2,383	1,641
Pentanes Plus	356	0	0	-2	0	0	0	147	0	207	57
Other Liquids	317	0	995	-87	0	102	0	2,335	0	-1,008	34,206
Other Hydrocarbons and Alcohol	317	0	0	2	0	0	0	319	0	0	3
Unfinished Oils	0	0	514	984	0	102	0	2,340	0	-740	25,817
Motor Gasoline Blending Components	0	0	481	-1,060	0	0	0	-311	0	-268	8,340
Aviation Gasoline Blending Components	0	0	0	-13	0	0	0	-13	0	0	46
Finished Petroleum Products	0	69,572	1,642	-1,042	0	2,574	0	0	6,570	66,176	54,522
Finished Motor Gasoline	0	30,968	906	-1,787	0	1,835	0	0	2	31,920	21,536
Finished Leaded Motor Gasoline	0	12,687	367	-558	0	1,038	0	0	2	13,532	9,823
Finished Unleaded Motor Gasoline	0	18,281	539	-1,229	0	797	0	0	0	18,388	11,713
Finished Aviation Gasoline	0	197	0	-70	0	0	0	0	0	127	512
Naphtha-Type Jet Fuel	0	1,348	0	105	0	373	0	0	0	1,826	1,534
Kerosene-Type Jet Fuel	0	6,987	97	734	0	170	0	0	122	7,866	5,041
Kerosene	0	178	0	1	0	0	0	0	0	179	251
Distillate Fuel Oil	0	10,123	109	434	0	252	0	0	1,092	9,826	10,815
Residual Fuel Oil	0	10,634	406	-445	0	0	0	0	2,883	7,711	8,664
Naphtha and Other Oils for Petro. Feed.	0	758	0	55	0	0	0	0	69	744	523
Special Naphthas	0	59	16	25	0	0	0	0	1	99	206
Lubricants	0	249	97	77	0	-56	0	0	33	334	1,330
Waxes	0	78	4	-7	0	0	0	0	2	72	58
Petroleum Coke	0	3,503	0	-69	0	0	0	0	2,364	1,070	2,116
Asphalt and Road Oil	0	908	3	-112	0	0	0	0	1	798	1,720
Still Gas	0	3,427	0	0	0	0	0	0	0	3,427	0
Miscellaneous Products	0	155	5	17	0	0	0	0	2	175	216
Total	89,764	70,620	8,479	-5,261	3,884	-19,222	25	67,177	11,347	69,715	175,384

1 Unaccounted for crude oil is a balancing item.
(s) = Less than 500 barrels.
E = Estimated.
Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (including Lease Condensate) by PAD District and State, for the Most Currently Available Month,[1] November 1983 (Thousand Barrels)

PAD District and State	Production	
	Total	Daily Average
PAD District I		
Florida	1,406	47
New York	E 68	E 2
Pennsylvania	E 352	E 12
Virginia	E 4	E 0
West Virginia	263	9
Adjustment [2]	151	5
Total PAD District I	E 2,244	E 75
PAD District II		
Illinois	2,370	79
Indiana	435	15
Kansas	5,932	198
Kentucky	641	21
Michigan	2,608	87
Missouri	E 17	E 1
Nebraska	520	17
North Dakota	4,184	139
Ohio	E 1,197	E 40
Oklahoma	13,854	462
South Dakota	97	3
Tennessee	74	2
Adjustment [2]	-609	-20
Total PAD District II	E 31,320	E 1,044
PAD District III		
Alabama	1,569	52
Arkansas	E 1,549	E 52
Louisiana		
Gulf Coast	E 37,832	E 1,261
Rest of State	2,779	93
Total Louisiana	E 40,611	E 1,354
Mississippi	2,656	89
New Mexico		
Northwestern	548	18
Southeastern	5,747	192
Total New Mexico	6,295	210
Texas		
TRRC District 01	2,016	67
TRRC District 02	3,349	112
TRRC District 03	E 10,018	E 334
TRRC District 04	2,312	77
TRRC District 05	751	25
TRRC District 06, excluding East Texas	3,467	116
TRRC District 07B	2,867	96
TRRC District 07C	2,803	93
TRRC District 08	19,094	636
TRRC District 08A	17,961	599
TRRC District 09	3,219	107
TRRC District 10	1,808	60
East Texas	4,143	138
Total Texas	E 73,808	E 2,460
Adjustment [2]	-2,390	-80
Total PAD District III	E 124,098	E 4,137
PAD District IV		
Colorado	E 2,528	E 84
Montana	2,382	79
Utah	E 2,367	E 79
Wyoming	9,295	310
Adjustment [2]	-327	-11
Total PAD District IV	E 16,245	E 541
PAD District V		
Alaska		
South Alaska	1,993	66
North Slope	49,609	1,654
Adjustment for Alaska[2]	-215	-7
Total Alaska	51,387	1,713
Arizona	18	1
California		
Central Coastal	6,227	208
East Central	20,707	690
North	15	1
South	6,365	212
Total California	33,314	1,110
Nevada	104	3
Adjustment for Arizona, California, and Nevada[2]	-22	-1
Total PAD District V	84,801	2,827
United States Total	E 258,708	E 8,624

See footnotes at end of table.

—Continued

1 Includes the following offshore production (thousand barrels):
Alaska: State - 1,730;
California: Federal - 2,533, State - 3,082;
Louisiana: Federal - E25,860, State - 1,960;
Texas: Federal - E1,593, State- 186;
U.S. Total - E36,944.

2 These adjustments are used to reconcile the national and PADD level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADD level figures published in a previous issue. Final data at the State, PAD District and national levels will be published without adjustments in the Petroleum Supply Annual.

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.
E = Estimated.
- Data not available.

Table 12. Natural Gas Processing Plant Production of Petroleum Products by PAD District,[1] January 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Natural Gas Liquids	396	565	961	0	1,928	479	7,055	9,462	19,797	2,473	7,698	599	4,170	34,737	2,869	945	48,974
Pentanes Plus	48	64	112	0	431	120	1,242	1,793	3,247	331	1,387	171	706	5,842	826	356	8,929
Liquefied Petroleum Gases	348	501	849	0	1,497	359	5,813	7,669	16,550	2,142	6,311	428	3,464	28,895	2,043	589	40,045
Ethane	102	161	263	0	507	3	2,292	2,802	6,739	1,076	2,954	71	1,121	11,961	254	2	15,282
Propane	148	235	383	0	651	203	2,277	3,131	6,321	761	2,074	185	1,407	10,748	1,158	378	15,798
Normal Butane	76	76	152	0	200	125	926	1,251	2,500	135	670	108	703	4,116	503	148	6,170
Isobutane	22	29	51	0	139	28	318	485	990	170	613	64	233	2,070	128	61	2,795
Finished Petroleum Products	48	0	48	0	3	0	13	16	36	41	1	18	5	101	7	0	172
Finished Motor Gasoline	48	0	48	0	0	0	0	0	10	0	0	0	0	10	4	0	62
Finished Leaded Motor Gasoline	30	0	30	0	0	0	0	0	10	0	0	0	0	10	4	0	44
Finished Unleaded Motor Gasoline	18	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	0	0	0	0	0	0	0	0	1	0	0	0	2	3	0	0	3
Distillate Fuel Oil	0	0	0	0	0	0	0	0	1	34	0	0	0	35	0	0	35
Special Naphthas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	3	0	13	16	24	7	1	18	3	53	3	0	72
Total Production	444	565	1,009	0	1,931	479	7,068	9,478	19,833	2,514	7,699	617	4,175	34,838	2,876	945	49,146

[1] Production represents quantity of natural gas processing plant output less input to fractionating facilities.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (including lease condensate)	29,648	2,331	31,979	1,755	54,108	8,434	17,916	82,213	14,863	84,127	61,995	4,884	2,309	168,178	12,498	64,077	358,945
Pentanes Plus	26	0	26	0	631	189	779	1,599	935	2,397	603	253	77	4,265	136	147	6,173
Liquefied Petroleum Gases	48	18	66	190	2,950	449	910	4,499	778	1,994	1,899	114	73	4,858	291	618	10,332
Ethane	0	0	0	0	6	0	0	6	0	2	39	0	0	41	0	0	47
Propane	10	0	10	0	81	0	0	81	0	3	45	0	0	48	9	10	158
Normal Butane	9	18	27	107	1,997	395	515	3,014	475	1,411	838	29	40	2,793	246	477	6,557
Isobutane	29	0	29	83	866	54	395	1,398	303	578	977	85	33	1,976	36	131	3,570
Other Liquids																	
Other Hydrocarbons and Alcohol	126	0	126	0	202	0	0	202	0	201	285	0	5	491	7	319	1,145
Unfinished Oil (net)	4,750	48	4,798	8	519	-53	140	614	346	2,009	-1,951	143	74	621	-457	2,340	7,916
Motor Gasoline Blending Components (net)	-181	21	-160	4	766	34	-25	779	-72	1,393	656	6	14	1,997	-134	-311	2,171
Aviation Gasoline Blending Components (net)	-13	0	-13	0	15	0	4	19	0	-21	7	0	0	-14	0	-13	-21
Total Input to Refineries	34,404	2,418	36,822	1,957	59,191	9,053	19,724	89,925	16,850	92,100	63,494	5,400	2,552	180,396	12,341	67,177	386,661
Crude Oil Distillation																	
Gross Input (daily average)	983	75	1,058	57	1,757	286	599	2,699	491	2,827	2,012	159	75	5,565	405	2,073	11,799
Operable Capacity (daily average)	1,473	174	1,647	66	2,318	295	791	3,470	613	3,867	2,539	295	107	7,421	555	3,102	16,196
Operating Ratio (percent)[1]	66.7	43.1	64.2	85.8	75.8	96.7	75.7	77.8	80.1	73.1	79.2	54.0	70.5	75.0	73.0	66.8	72.9
Crude Oil Qualities																	
Sulfur Content, Weighted Average (percent)	.86	.40	.83	.48	.83	1.83	.62	.88	.57	.92	.95	1.36	.70	.91	.85	1.03	.92
API Gravity, Weighted Average	31.39	40.42	32.05	37.60	35.13	30.78	37.81	35.32	37.41	35.30	33.10	33.76	39.45	34.68	36.38	25.32	32.94
Operable Capacity (daily average)	1,473	174	1,647	66	2,318	295	791	3,470	613	3,867	2,539	295	107	7,421	555	3,102	16,196
Operating	1,220	110	1,330	66	2,142	295	744	3,247	562	3,569	2,363	204	107	6,805	528	2,841	14,750
Idle	253	64	317	0	176	0	47	223	51	297	176	91	0	616	28	261	1,446

[1] Represents gross input divided by operable capacity.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Refinery Production of Petroleum Products by PAD District, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	1,109	21	1,130	40	1,550	219	163	1,972	167	2,161	3,153	67	82	5,630	77	1,048	9,857
For Petrochemical Feedstock Use	438	0	438	0	182	0	35	217	42	1,336	1,929	15	0	3,322	-27	223	4,173
For Other Uses	671	21	692	40	1,368	219	128	1,755	125	825	1,224	52	82	2,308	104	825	5,684
Ethane	11	0	11	0	0	0	0	0	0	535	10	0	12	557	0	0	568
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	394	1	0	0	395	0	0	395
For Other Uses	11	0	11	0	0	0	0	0	0	141	9	0	12	162	0	0	173
Propane	1,006	21	1,027	40	1,517	219	399	2,175	172	2,058	1,519	44	62	3,855	156	858	8,071
For Petrochemical Feedstock Use	361	0	361	0	155	0	35	190	42	1,049	232	0	0	1,323	0	132	2,006
For Other Uses	645	21	666	40	1,362	219	364	1,985	130	1,009	1,287	44	62	2,532	156	726	6,065
Normal Butane	92	0	92	0	6	0	-236	-230	-5	-397	1,624	23	8	1,253	-80	190	1,225
For Petrochemical Feedstock Use	77	0	77	0	0	0	0	0	0	-72	1,696	15	0	1,639	-28	91	1,779
For Other Uses	15	0	15	0	6	0	-236	-230	-5	-325	-72	8	8	-386	-52	99	-554
Isobutane for Petro. Feed. Use	0	0	0	0	27	0	0	27	0	-35	0	0	0	-35	1	0	-7
Finished Motor Gasoline	16,292	930	17,222	1,181	33,666	4,852	10,815	50,514	9,100	41,408	28,539	1,756	1,157	81,960	6,433	30,968	187,097
Finished Leaded Motor Gasoline	5,196	427	5,623	528	13,405	2,399	5,956	22,288	4,704	15,586	11,519	816	610	33,235	3,770	12,687	77,603
Finished Unleaded Motor Gasoline	11,096	503	11,599	653	20,261	2,453	4,859	28,226	4,396	25,822	17,020	940	547	48,725	2,663	18,281	109,494
Finished Aviation Gasoline	0	0	0	0	88	0	8	96	27	146	94	0	0	267	11	197	571
Naphtha-Type Jet Fuel	617	36	653	31	352	184	306	873	630	730	475	154	312	2,301	384	1,348	5,559
Kerosene-Type Jet Fuel	872	0	872	-3	3,603	454	569	4,623	887	5,802	7,126	-2	46	13,859	559	6,987	26,900
Kerosene	578	119	697	106	1,138	95	-15	1,324	61	1,594	1,429	121	59	3,264	142	178	5,605
Distillate Fuel Oil	8,288	608	8,896	417	11,628	2,292	5,562	19,899	3,342	20,134	12,213	1,434	698	37,821	3,350	10,123	80,089
Residual Fuel Oil	4,422	184	4,606	67	1,947	-297	450	2,167	660	7,570	3,240	275	75	11,820	305	10,634	29,532
Naphtha < 400 Deg. For Petro. Feed. Use	356	0	356	0	483	0	70	553	526	1,795	94	40	0	2,455	0	168	3,532
Other Oils > 400 Deg. For Petro. Feed. Use	2	0	2	0	76	0	0	76	108	3,736	2,700	0	0	6,544	0	590	7,212
Special Naphthas	14	30	44	0	250	0	163	413	21	856	-17	152	0	1,012	2	59	1,530
Lubricants	325	261	586	0	510	0	361	871	0	1,581	612	379	0	2,572	37	249	4,315
Waxes	19	53	72	0	-17	0	27	10	6	66	71	49	0	192	8	78	360
Petroleum Coke	1,075	18	1,093	26	2,173	499	553	3,251	278	2,430	2,628	90	11	5,437	281	3,503	13,565
Marketable	264	0	264	0	1,132	379	369	1,880	45	1,153	1,906	77	0	3,181	131	2,708	8,164
Catalyst	811	18	829	26	1,041	120	184	1,371	233	1,277	722	13	11	2,256	150	795	5,401
Asphalt and Road Oil	534	22	556	88	1,114	862	448	2,512	422	152	527	667	88	1,856	587	908	6,419
Still Gas	1,556	92	1,648	55	2,377	310	696	3,438	423	4,571	2,691	213	43	7,941	453	3,427	16,907
For Petrochemical Feedstock Use	204	0	204	0	2	0	0	2	3	375	157	0	0	535	27	160	928
For Other Uses	1,352	92	1,444	55	2,375	310	696	3,436	420	4,196	2,534	213	43	7,406	426	3,267	15,979
Miscellaneous Products	123	35	158	3	152	34	53	242	92	1,116	637	37	0	1,882	33	155	2,470
Fuel Use	3	22	25	0	1	0	8	9	0	24	306	0	0	330	3	19	386
Non-Fuel Use	120	13	133	3	151	34	45	233	92	1,092	331	37	0	1,552	30	136	2,084
Total Production	36,182	2,409	38,591	2,011	61,090	9,504	20,229	92,834	16,750	95,848	66,212	5,432	2,571	186,813	12,662	70,620	401,520
Processing Gain(-) or Loss(+)[1]	-1,778	9	-1,769	-54	-1,899	-451	-505	-2,909	100	-3,748	-2,718	-32	-19	-6,417	-321	-3,443	-14,859

[1] Represents the arithmetic difference between input and output.
Note: See Explanatory Note 2.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District,[1] January 1984

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Finished Motor Gasoline[2]	47.3	37.5	46.7	56.0	53.3	49.9	50.7	52.4	49.0	41.1	41.8	27.5	41.5	41.7	50.9	45.5	45.6
Finished Aviation Gasoline[3]	.0	.0	.0	.0	.1	.0	.0	.1	.2	.2	.1	.0	.0	.2	.1	.3	.2
Liquefied Refinery Gases	3.2	.9	3.1	2.3	2.8	2.6	.9	2.4	1.1	2.5	5.3	1.3	3.4	3.3	.6	1.6	2.7
Naphtha-Type Jet Fuel	1.8	1.5	1.8	1.8	.6	2.2	1.7	1.1	4.1	.8	.8	3.1	13.1	1.4	3.2	2.0	1.5
Kerosene-Type Jet Fuel	2.5	0	2.4	-.2	6.6	5.4	3.2	5.6	5.8	6.7	11.9	.0	1.9	8.2	4.6	10.5	7.3
Kerosene	1.7	5.0	1.9	6.0	2.1	1.1	-.1	1.6	.4	1.9	2.4	2.4	2.5	1.9	1.2	.3	1.5
Distillate Fuel Oil	24.1	25.6	24.2	23.7	21.3	27.3	30.8	24.0	22.0	23.4	20.3	28.5	29.3	22.4	27.8	15.2	21.8
Residual Fuel Oil	12.9	7.7	12.5	3.8	3.6	-3.5	2.5	2.6	4.3	8.8	5.4	5.5	3.1	7.0	2.5	16.0	8.0
Naphtha < 400 Deg. F. Petro. Feed. Use	1.0	0	1.0	0	.9	0	.4	.7	3.5	2.1	.2	.8	0	1.5	0	.3	1.0
Other Oils > 400 Deg. F. Petro. Feed. Use	.0	0	.0	0	.1	0	0	.1	.7	4.3	4.5	0	0	3.9	.0	.9	2.0
Special Naphthas	.0	1.3	.1	0	.5	0	.9	.5	.1	1.0	.0	3.0	0	.6	.0	.1	.4
Lubricants	.9	11.0	1.6	0	.9	0	2.0	1.1	.0	1.8	1.0	7.5	0	1.5	.3	.4	1.2
Waxes	.1	2.2	.2	0	.0	0	.1	.0	.0	.1	.1	1.0	0	.1	.1	.1	.1
Petroleum Coke	3.1	.8	3.0	1.5	4.0	6.0	3.1	3.9	1.8	2.8	4.4	1.8	.5	3.2	2.3	5.3	3.7
Asphalt and Road Oil	1.6	.9	1.5	5.0	2.0	10.3	2.5	3.0	2.8	.2	.9	13.3	3.7	1.1	4.9	1.4	1.7
Still Gas	4.5	3.9	4.5	3.1	4.4	3.7	3.9	4.2	2.8	5.3	4.5	4.2	1.8	4.7	3.8	5.2	4.6
Miscellaneous Products	.4	1.5	.4	.2	.3	.4	.3	.3	.6	1.3	1.1	.7	0	1.1	.3	.2	.7
Processing Gain(-) or Loss(+)[4]	-5.2	.4	-4.8	-3.1	-3.5	-5.4	-2.8	-3.5	.7	-4.4	-4.5	-.6	-.8	-3.8	-2.7	-5.2	-4.1

1 Based on crude oil input and net reruns of unfinished oils.
2 Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and alcohol.
3 Based on finished aviation gasoline output plus net output of aviation gasoline blending components.
4 Represents the difference between Input and Production.
Note: Total may not equal sum of components due to independent rounding.
Note: See Explanatory 2.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1] [2]	**26,057**	**13,452**	**48,239**	**868**	**5,278**	**93,895**
Natural Gas Liquids	**733**	**5,997**	**845**	**807**	**564**	**8,946**
Pentanes Plus	451	0	42	103	0	596
Liquefied Petroleum Gases	282	5,997	803	703	564	8,350
Ethane	0	2,957	0	0	0	2,957
Propane	150	1,976	338	463	154	3,082
Normal Butane	79	638	296	144	246	1,403
Isobutane	53	426	169	96	164	907
Other Liquids [1]	2,754	346	5,776	0	995	9,870
Unfinished Oils [1]	2,754	346	5,471	0	514	9,085
Motor Gasoline Blending Components	**0**	**0**	**304**	**0**	**481**	**785**
Aviation Gasoline Blending Components	0	0	0	0	0	0
Finished Petroleum Products	45,694	583	4,924	196	1,642	53,038
Finished Motor Gasoline	5,489	22	737	55	906	7,209
Finished Leaded Motor Gasoline	**2,169**	**19**	**478**	**55**	**367**	**3,088**
Finished Unleaded Motor Gasoline	3,320	3	258	(s)	539	4,121
Finished Aviation Gasoline	1	0	0	0	0	1
Naphtha-Type Jet Fuel	438	0	0	0	0	438
Kerosene-Type Jet Fuel	1,318	0	0	0	97	1,415
Bonded Aircraft Fuel	0	0	0	0	0	0
Other	1,318	0	0	0	97	1,415
Kerosene	530	0	6	0	0	536
Distillate Fuel Oil	7,782	108	245	115	109	8,359
Bonded Ships Bunkers	0	0	0	0	0	0
Other	7,782	108	245	115	109	8,359
Residual Fuel Oil	29,779	309	2,366	24	406	32,883
Bonded Ships Bunkers	0	0	0	0	0	0
Other	29,779	309	2,366	24	406	32,883
Naphtha < 400 Deg. for Petro. Feed. Use	6	19	822	0	0	848
Other Oils > 400 Deg. for Petro. Feed. Use	0	0	0	0	0	0
Special Naphthas	119	30	264	(s)	16	429
Lubricants	204	9	37	(s)	97	348
Waxes	17	4	3	0	4	27
Asphalt and Road Oil	0	13	1	0	3	17
Miscellaneous Products	11	70	444	(s)	5	530
Total Imports	75,237	20,379	59,784	1,871	8,479	165,749

[1] Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
[2] Includes crude oil imported for storage in the Strategic Petroleum Reserve.
(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984
(Thousand Barrels)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	All PAD Districts													
Arab OPEC														
Algeria	2,930	0	0	0	0	45	0	428	3,598	0	503	4,575	7,505	242
Kuwait	253	0	0	0	0	0	0	0	0	0	0	0	253	8
Saudi Arabia	13,735	75	49	0	0	0	0	0	499	0	(s)	594	14,359	463
United Arab Emirates	3,212	0	0	0	0	0	0	0	336	0	0	336	3,548	114
Subtotal Arab OPEC	20,130	75	49	0	0	45	0	428	4,434	0	503	5,505	25,665	828
Other OPEC														
Ecuador	1,023	0	0	0	0	0	0	0	301	0	0	301	1,324	43
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	7,165	455	514	0	150	38	0	39	222	0	24	1,345	8,606	278
Nigeria	7,536	0	0	0	0	0	0	0	0	0	0	0	7,536	243
Venezuela	5,834	0	462	0	2,184	221	0	1,427	6,617	57	167	11,135	16,968	547
Subtotal Other OPEC	21,558	455	976	0	2,333	259	0	1,466	7,140	57	191	12,780	34,434	1,111
Other														
Angola	2,583	0	0	0	0	0	0	0	0	0	0	0	2,583	83
Australia	0	0	0	0	141	27	0	38	321	0	37	564	564	18
Bahamas	0	0	2,118	0	0	270	0	1,312	491	0	513	4,704	4,704	152
Brazil	0	0	0	0	567	0	0	0	349	36	0	951	951	31
Canada	9,088	7,466	351	0	192	0	10	954	784	58	449	9,555	19,351	624
Congo	733	0	0	0	0	0	0	0	177	0	0	177	910	29
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	22
France	0	0	(s)	0	0	0	(s)	0	0	0	(s)	1	1	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	4
Liberia	0	0	0	0	0	0	0	0	968	0	0	968	968	31
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	4
Mexico	19,622	354	654	13	220	31	0	552	373	(s)	29	2,153	21,848	705
Netherlands	0	(s)	0	0	243	0	0	452	0	0	(s)	696	696	22
Netherlands Antilles	0	0	2,005	0	258	0	0	0	6,299	0	20	8,581	8,581	277
Norway	2,725	0	0	0	0	0	0	0	0	0	0	0	2,725	88
Oman	0	0	0	0	0	0	0	0	382	0	0	382	382	12
People's Republic of China	629	0	0	481	332	0	0	0	0	0	0	814	1,442	47
Peru	0	0	0	0	0	0	0	0	1,221	0	0	1,221	1,221	39
Puerto Rico	0	0	232	0	473	157	0	394	0	202	188	1,645	1,645	53
Romania	0	0	0	0	0	0	0	0	0	0	280	280	280	9
Spain	0	0	0	0	0	0	0	0	364	0	(s)	364	364	12
Trinidad and Tobago	1,412	0	13	0	0	0	0	0	244	7	0	264	1,676	54
Tunisia	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
United Kingdom	10,996	0	216	291	202	0	0	0	128	0	5	842	11,838	382
Virgin Islands	0	0	804	0	1,442	1,031	520	2,278	5,962	0	51	12,089	12,089	390
Zaire	1,069	0	0	0	0	0	0	0	0	0	0	0	1,069	34
Other Western Hemisphere	0	0	78	0	0	0	6	0	979	60	2	1,124	1,124	36
Other Eastern Hemisphere	2,676	(s)	1,464	0	805	32	0	484	2,149	9	100	5,042	7,719	249
Subtotal Other	52,207	7,820	8,060	785	4,876	1,548	536	6,465	21,309	372	1,672	52,661	105,650	3,408
Total Imports	93,895	8,350	9,085	785	7,209	1,853	536	8,359	32,883	429	2,366	70,947	165,749	5,347

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	PAD District I													
Arab OPEC														
Algeria	503	0	0	0	0	45	0	428	3,598	0	0	4,072	4,575	148
Kuwait	251	0	0	0	0	0	0	0	0	0	0	0	251	8
Saudi Arabia	1,876	75	49	0	0	0	0	0	0	0	(s)	94	2,001	65
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Arab OPEC	2,630	75	49	0	0	45	0	428	3,598	0	(s)	4,167	6,827	220
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	301	0	0	301	301	10
Indonesia	2,546	0	0	0	0	0	0	0	0	0	0	0	2,546	82
Nigeria	3,801	0	0	0	0	0	0	0	0	0	0	0	3,801	123
Venezuela	1,205	0	0	0	1,679	221	0	1,427	6,290	0	0	9,617	10,822	349
Subtotal Other OPEC	7,552	0	0	0	1,679	221	0	1,427	6,591	0	0	9,918	17,470	564
Other														
Angola	1,528	0	0	0	0	0	0	0	0	0	0	0	1,528	49
Australia	0	0	0	0	0	0	0	0	254	0	0	254	254	8
Bahamas	0	0	0	0	0	270	0	1,312	491	0	(s)	2,073	2,073	67
Brazil	0	0	0	0	567	0	0	0	349	0	0	915	915	30
Canada	932	207	5	0	83	0	10	709	451	12	199	1,653	2,607	84
Congo	733	0	0	0	0	0	0	0	177	0	0	177	910	29
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	119	0	0	119	119	4
Liberia	0	0	0	0	0	0	0	0	968	0	0	968	968	31
Mexico	2,840	0	0	0	0	31	0	356	0	0	0	387	3,227	104
Netherlands	0	0	0	0	243	0	0	452	0	0	(s)	696	696	22
Netherlands Antilles	0	0	1,747	0	0	0	0	0	6,299	0	3	8,049	8,049	260
Norway	2,206	0	0	0	0	0	0	0	0	0	0	0	2,206	71
People's Republic of China	629	0	0	0	0	0	0	0	0	0	0	0	629	20
Peru	0	0	0	0	0	0	0	0	1,221	0	0	1,221	1,221	39
Puerto Rico	0	0	232	0	473	157	0	394	0	100	188	1,544	1,544	50
Romania	0	0	0	0	0	0	0	0	0	0	280	280	280	9
Spain	0	0	0	0	0	0	0	0	364	0	(s)	364	364	12
Trinidad and Tobago	0	0	13	0	0	0	0	0	244	7	0	264	264	9
Tunisia	1	0	0	0	0	0	0	0	0	0	0	0	1	(s)
United Kingdom	5,453	0	216	0	202	0	0	0	128	0	5	551	6,003	194
Virgin Islands	0	0	492	0	1,442	1,031	520	2,278	5,928	0	0	11,692	11,692	377
Zaire	1,069	0	0	0	0	0	0	0	0	0	0	0	1,069	34
Other Western Hemisphere	0	0	0	0	0	0	0	0	979	0	(s)	979	979	32
Other Eastern Hemisphere	484	(s)	0	0	800	0	0	426	1,618	0	15	2,859	3,343	108
Subtotal Other	15,875	207	2,704	0	3,810	1,489	530	5,927	19,589	119	690	35,044	50,941	1,643
Total Imports	26,057	282	2,754	0	5,489	1,756	530	7,782	29,779	119	690	49,128	75,237	2,427

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil 1	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
	PAD District II													
Arab OPEC														
Algeria	186	0	0	0	0	0	0	0	0	0	0	0	186	6
Subtotal Arab OPEC	186	0	0	0	0	0	0	0	0	0	0	0	186	6
Other OPEC														
Nigeria	527	0	0	0	0	0	0	0	0	0	0	0	527	17
Venezuela	417	0	0	0	0	0	0	0	0	0	0	0	417	13
Subtotal Other OPEC	945	0	0	0	0	0	0	0	0	0	0	0	945	30
Other														
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canada	6,626	5,997	346	0	22	0	0	108	309	30	115	6,501	13,552	437
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	4,186	0	0	0	0	0	0	0	0	0	0	0	4,186	135
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	519	0	0	0	0	0	0	0	0	0	0	0	519	17
Trinidad and Tobago	462	0	0	0	0	0	0	0	0	0	0	0	462	15
United Kingdom	529	0	0	0	0	0	0	0	0	0	(s)	(s)	530	17
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Subtotal Other	12,322	5,997	346	0	22	0	0	108	309	30	115	6,501	19,248	621
Total Imports	13,452	5,997	346	0	22	0	0	108	309	30	115	6,501	20,379	657
	PAD District III													
Arab OPEC														
Algeria	2,241	0	0	0	0	0	0	0	0	0	503	503	2,744	89
Kuwait	2	0	0	0	0	0	0	0	0	0	0	0	2	(s)
Saudi Arabia	11,859	0	0	0	0	0	0	0	499	0	0	499	12,358	399
United Arab Emirates	3,212	0	0	0	0	0	0	0	336	0	0	336	3,548	114
Subtotal Arab OPEC	17,314	0	0	0	0	0	0	0	836	0	503	1,339	18,653	602
Other OPEC														
Ecuador	1,023	0	0	0	0	0	0	0	0	0	0	0	1,023	33
Gabon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	593	455	0	0	0	0	0	0	0	0	24	383	1,072	35
Nigeria	3,208	0	0	0	0	0	0	0	0	0	0	0	3,208	103
Venezuela	4,211	0	462	0	258	0	0	0	327	57	167	1,272	5,483	177
Subtotal Other OPEC	9,035	455	462	0	258	0	0	0	327	57	191	1,655	10,786	348
Other														
Angola	1,055	0	0	0	0	0	0	0	0	0	0	0	1,055	34
Australia	0	0	0	0	0	0	0	0	0	0	36	36	36	1
Bahamas	0	0	2,118	0	0	0	0	0	0	0	513	2,631	2,631	85
Brazil	0	0	0	0	0	0	0	0	0	36	0	36	36	1
Canada	(s)	0	0	0	0	0	0	0	0	0	26	26	26	1
Egypt	674	0	0	0	0	0	0	0	0	0	0	0	674	22
France	0	0	(s)	0	0	0	(s)	0	0	0	(s)	(s)	(s)	(s)
Malaysia	0	0	125	0	0	0	0	0	0	0	0	125	125	4

See footnotes at end of table.

Table 17. Imports of Crude Oil and Petroleum Products by Source and PAD District, January 1984 (Thousand Barrels) (continued)

Source	Crude Oil [1]	LPG	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distil. Fuel Oil	Resid. Fuel Oil	Special Naphthas	Other Products [2]	Total Products	Total Petroleum	Total (Daily Average)
PAD District III														
Other														
Mexico	12,595	348	654	13	220	0	0	190	360	(s)	22	1,734	14,402	465
Netherlands Antilles	0	0	258	0	258	0	0	0	0	0	0	516	516	17
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oman	0	0	0	0	0	0	0	0	382	0	0	382	382	12
Puerto Rico	0	0	0	0	0	0	0	0	0	102	0	102	102	3
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	950	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	5,014	0	0	291	0	0	0	0	0	0	0	0	950	31
Virgin Islands	0	0	313	0	0	0	0	0	34	0	(s)	291	5,305	171
Zaire	0	0	0	0	0	0	0	0	0	0	51	398	398	13
Other Western Hemisphere	0	0	78	0	0	0	6	0	0	60	1	145	145	5
Other Eastern Hemisphere	1,601	0	1,464	0	0	0	0	55	427	9	5	1,960	3,561	115
Subtotal Other	21,889	348	5,009	304	478	0	6	245	1,203	207	654	8,382	30,345	979
Total Imports	48,239	803	5,471	304	737	0	6	245	2,366	264	1,348	11,376	59,784	1,929
PAD District IV														
Other														
Canada	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
Total Imports	868	703	0	0	55	0	0	115	24	(s)	104	906	1,871	60
PAD District V														
Other OPEC														
Indonesia	4,026	0	514	0	150	38	0	39	222	0	(s)	962	4,988	161
Venezuela	0	0	0	0	246	0	0	0	0	0	0	246	246	8
Subtotal Other OPEC	4,026	0	514	0	396	38	0	39	222	0	(s)	1,208	5,234	169
Other														
Australia	0	0	0	0	141	27	0	38	67	0	(s)	274	274	9
Canada	662	559	0	0	32	0	0	22	0	16	4	469	1,295	42
France	0	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)	(s)
Mexico	0	6	0	0	0	0	0	6	14	0	7	32	32	1
Netherlands	0	(s)	0	0	0	0	0	0	0	0	0	(s)	(s)	(s)
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	17	17	17	1
People's Republic of China	0	0	0	481	332	0	0	0	0	0	0	814	814	26
United Kingdom	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	590	0	0	0	4	32	0	3	103	0	81	224	814	26
Subtotal Other	1,252	564	0	481	510	59	0	70	184	16	109	1,829	3,245	105
Total Imports	5,278	564	514	481	906	97	0	109	406	16	109	3,037	8,479	274

1 Includes crude oil imported for storage in the Strategic Petroleum Reserve.
2 Includes aviation gasoline, waxes, asphalt, lubricants, pentanes plus, napthas less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.
(s) = Less than 500 barrels or less than 500 barrels per day.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) [1]	0	162	0	0	4,577	4,739
Natural Gas Liquids	47	(s)	473	0	200	719
Pentanes Plus	0	(s)	0	0	0	(s)
Liquefied Petroleum Gases	47	(s)	473	0	200	719
Ethane	(s)	(s)	(s)	0	0	(s)
Propane	20	(s)	431	0	80	531
Normal Butane	26	(s)	42	0	120	189
Isobutane	0	(s)	0	0	0	(s)
Finished Motor Gasoline	22	(s)	(s)	0	2	25
Naphtha-Type Jet Fuel	0	0	0	0	0	0
Kerosene-Type Jet Fuel	97	100	0	0	122	318
Kerosene	2	0	(s)	0	0	2
Distillate Fuel Oil	1	1	154	0	1,092	1,248
Residual Fuel Oil	250	0	1,561	0	2,883	4,695
Naphtha < 400 Deg. for Petrochem. Feedstock	45	9	70	2	68	194
Other Oils > 400 Deg. for Petrochem. Feedstock	(s)	0	411	0	1	412
Special Naphthas	4	9	32	0	1	46
Lubricants	80	15	175	1	33	303
Waxes	6	(s)	32	0	2	40
Petroleum Coke	269	17	2,406	0	2,364	5,055
Asphalt	1	2	(s)	1	1	5
Miscellaneous Products	17	2	10	0	2	31
Total Product Exports	840	155	5,324	3	6,770	13,093
Total Exports	840	317	5,324	3	11,347	17,832

[1] Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

(s) = Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, January 1984
(Thousand Barrels)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt	Other2	Total	Total (Daily Average)
Argentina	0	(s)	0	0	0	0	0	12	(s)	0	0	(s)	12	(s)
Australia	0	(s)	0	0	1	353	11	6	(s)	228	1	6	604	19
Bahamas	0	5	1	0	190	0	0	1	(s)	0	0	(s)	197	6
Bahrain	0	0	0	0	0	0	0	(s)	0	64	0	0	64	2
Belgium & Luxembourg	0	(s)	0	0	0	0	(s)	4	(s)	787	0	3	794	26
Brazil	0	1	0	0	0	0	0	2	(s)	0	0	(s)	3	(s)
Cameroon	0	0	0	0	0	0	0	(s)	0	30	0	0	30	1
Canada	162	3	21	180	661	821	12	49	2	202	2	32	2,146	69
Chile	0	0	0	0	0	0	0	2	(s)	(s)	0	1	3	(s)
China (Taiwan)	0	1	0	0	0	492	(s)	10	(s)	1	(s)	1	505	16
Colombia	0	(s)	0	0	0	0	(s)	9	12	(s)	0	1	21	1
Costa Rica	0	21	0	0	0	0	(s)	4	(s)	0	0	1	26	1
Denmark	0	(s)	0	0	0	0	0	(s)	(s)	0	0	1	1	(s)
Dominican Republic	0	49	0	0	0	0	0	(s)	0	0	0	(s)	49	2
Ecuador	0	40	0	0	153	(s)	(s)	1	(s)	0	(s)	1	196	6
Egypt	0	0	0	0	(s)	0	0	1	0	0	0	(s)	1	(s)
El Salvador	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Finland	0	0	0	0	0	0	0	(s)	0	0	0	1	1	(s)
France	0	0	0	0	1	119	(s)	1	1	308	0	325	756	24
French Pacific Isl	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Guatemala	0	83	0	0	0	0	2	3	(s)	0	(s)	(s)	88	3
Guinea	0	(s)	0	0	0	120	0	1	0	0	0	0	122	4
Honduras	0	(s)	0	0	0	0	1	2	(s)	0	0	(s)	4	(s)
Hong Kong	0	(s)	0	0	0	0	0	1	(s)	0	(s)	1	2	(s)
India	0	0	0	0	0	0	0	(s)	(s)	0	0	9	10	(s)
Indonesia	0	0	0	0	(s)	0	(s)	5	0	0	(s)	1	6	(s)
Iran	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Israel	0	(s)	0	0	0	0	(s)	(s)	(s)	0	0	(s)	1	(s)
Italy	0	1	0	0	0	310	0	1	(s)	520	0	36	868	28
Ivory Coast	0	0	0	0	0	40	0	(s)	0	0	0	0	40	1
Jamaica	0	13	0	0	0	0	(s)	7	0	0	0	(s)	21	1
Japan	0	2	0	0	21	1,003	3	4	2	1,273	0	40	2,349	76
Jordan	0	(s)	0	0	0	0	0	(s)	0	0	0	0	1	(s)
Korea, Republic of	0	1	0	0	0	0	(s)	3	(s)	286	0	57	347	11
Kuwait	0	0	0	0	0	0	(s)	1	0	0	0	(s)	2	(s)
Lebanon	0	0	0	0	0	0	0	1	0	0	0	(s)	1	(s)
Liberia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0	0	(s)	(s)	0	0	(s)	1	(s)
Mexico	0	442	3	41	0	0	3	81	9	43	0	6	627	20
Netherlands	0	(s)	0	0	0	306	8	7	1	367	0	32	720	23
Netherlands Antilles	0	(s)	0	0	0	251	(s)	1	0	0	0	0	252	8
New Zealand	0	0	0	0	0	0	1	2	(s)	127	0	3	133	4
Nicaragua	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Nigeria	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Norway	0	0	0	0	0	0	0	(s)	0	73	0	(s)	73	2
Pacific Trust Terr.	0	(s)	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Panama	0	15	0	0	0	150	(s)	3	(s)	0	0	(s)	168	5
Peru	0	0	0	0	221	0	0	2	(s)	0	0	(s)	223	7
Philippines	0	0	0	0	0	0	1	1	(s)	0	0	1	2	(s)
Puerto Rico	698	5	0	0	0	(s)	(s)	15	1	0	(s)	5	726	23
Rep. of South Africa	0	0	0	0	0	0	(s)	1	8	83	(s)	57	149	5

See footnotes at end of table.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, January 1984
(Thousand Barrels)
(continued)

Destination	Crude Oil 1	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphthas	Lubri-cants	Waxes	Petro-leum Coke	Asphalt	Other2	Total	Total (Daily Average)
Saudi Arabia	0	2	0	0	0	0	(s)	11	0	0	0	4	16	1
Singapore	0	(s)	0	0	0	0	2	2	(s)	0	(s)	3	6	(s)
Spain	0	1	0	0	0	0	0	(s)	(s)	303	0	1	305	10
Surinam	0	0	0	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	1	0	0	0	0	0	1	(s)	0	0	2	4	(s)
Switzerland	0	0	0	0	0	0	0	(s)	0	0	0	(s)	1	(s)
Thailand	0	(s)	0	0	0	0	0	1	(s)	0	0	(s)	1	(s)
Trinidad and Tobago	0	0	0	97	0	0	(s)	2	(s)	0	(s)	(s)	99	3
Turkey	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
United Arab Emirates	0	0	0	0	0	0	0	24	0	58	0	(s)	83	3
United Kingdom	0	1	0	0	(s)	0	1	1	(s)	2	(s)	2	7	(s)
U.S.S.R.	0	0	0	0	0	0	0	(s)	0	83	0	0	83	3
Uruguay	0	0	0	0	0	0	0	(s)	0	0	(s)	0	(s)	(s)
Venezuela	0	1	0	0	0	0	(s)	2	1	93	(s)	1	97	3
Virgin Islands	2,932	13	0	0	0	729	0	(s)	0	0	0	0	3,674	119
West Germany	0	0	0	0	0	0	0	2	1	125	0	1	129	4
Yugoslavia	0	0	0	0	0	0	0	(s)	0	0	0	0	(s)	(s)
Other	947	18	(s)	0	(s)	0	(s)	8	0	0	(s)	2	976	31
Total	4,739	719	25	318	1,248	4,695	46	303	40	5,055	5	639	17,832	575

1 Exports of crude oil are prohibited by law. However, some crude oil is exchanged with Canada on a barrel for barrel basis, and crude oil is shipped to U.S. Territories (especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical Tracking Systems count these exchanges and shipments as imports and exports.

2 Includes kerosene, naptha less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

(s) = Less than 500 barrels or less than 500 barrels per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Crude Oil (incl. lease condensate)																	
Refinery	—	—	14,616	—	—	—	—	13,758	—	—	—	—	—	49,900	1,849	26,292	106,415
Tank Farms and Pipelines	—	—	916	—	—	—	—	58,147	—	—	—	—	—	93,127	10,495	33,238	195,923
Leases	—	—	55	—	—	—	—	1,654	—	—	—	—	—	17,439	1,498	1,685	22,331
Strategic Petroleum Reserve[1]	—	—	0	—	—	—	—	0	—	—	—	—	—	384,449	0	0	384,449
Alaskan In-Transit	—	—	0	—	—	—	—	0	—	—	—	—	—	0	0	23,743	23,743
Total	—	—	15,587	—	—	—	—	73,559	—	—	—	—	—	544,915	13,842	84,958	732,861
Total Stocks, All Oils (excl. Crude Oil)																	
Refinery	34,080	2,815	36,895	916	38,990	7,072	14,980	61,958	9,941	72,275	43,847	4,310	1,552	131,925	12,595	62,969	306,342
Bulk Terminal	—	—	99,617	—	—	—	—	79,368	—	—	—	—	—	69,361	3,239	22,667	274,252
Pipeline	—	—	26,580	—	—	—	—	34,923	—	—	—	—	—	38,632	2,654	4,679	107,468
Natural Gas Processing Plant	104	49	153	0	213	61	1,232	1,506	1,562	4,501	720	78	260	7,121	233	111	9,124
Total	—	—	163,245	—	—	—	—	177,755	—	—	—	—	—	247,039	18,721	90,426	697,186
Pentanes Plus																	
Refinery	16	0	16	0	63	30	157	250	55	247	196	67	6	571	12	10	859
Bulk Terminal	—	—	17	—	—	—	—	2,013	—	—	—	—	—	1,939	1	19	3,989
Pipeline	—	—	0	—	—	—	—	368	—	—	—	—	—	1,358	82	5	1,813
Natural Gas Processing Plant	3	8	11	0	43	26	415	484	452	548	197	28	27	1,252	90	23	1,860
Total	—	—	44	—	—	—	—	3,115	—	—	—	—	—	5,120	185	57	8,521
Liquefied Petroleum Gases																	
Refinery	423	14	437	179	1,441	108	479	2,207	201	553	1,746	23	26	2,549	275	564	6,032
Bulk Terminal	—	—	1,355	—	—	—	—	18,184	—	—	—	—	—	44,710	105	989	65,343
Pipeline	—	—	1,211	—	—	—	—	7,162	—	—	—	—	—	5,883	441	0	14,697
Natural Gas Processing Plant	92	41	133	0	168	35	817	1,020	985	3,951	523	48	232	5,739	128	88	7,108
Total	—	—	3,136	—	—	—	—	28,573	—	—	—	—	—	58,881	949	1,641	93,180
Ethane																	
Refinery	12	0	12	0	1	16	0	17	0	8	0	0	0	8	0	0	37
Bulk Terminal	—	—	0	—	—	—	—	3,534	—	—	—	—	—	11,839	0	0	15,373
Pipeline	—	—	0	—	—	—	—	1,652	—	—	—	—	—	1,835	139	0	3,626
Natural Gas Processing Plant	0	0	0	0	23	0	189	212	71	1,520	0	0	19	1,610	2	0	1,824
Total	—	—	12	—	—	—	—	5,415	—	—	—	—	—	15,292	141	0	20,860

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Propane for Petrochemical Feedstock Use																	
Refinery	41	0	41	0	66	0	0	66	2	8	117	0	0	127	0	0	234
Total	—	—	41	—	—	—	—	66	—	—	—	—	—	127	0	0	234
Propane For Other Uses																	
Refinery	326	5	331	0	706	23	146	875	55	70	827	5	4	961	103	224	2,494
Bulk Terminal	—	—	1,109	—	—	—	—	11,975	—	—	—	—	—	17,699	104	352	31,239
Pipeline	—	—	1,112	—	—	—	—	3,726	—	—	—	—	—	2,504	190	0	7,532
Natural Gas Processing Plant	75	37	112	0	89	20	430	539	445	1,122	384	21	117	2,089	76	67	2,883
Total	—	—	2,664	—	—	—	—	17,115	—	—	—	—	—	23,253	473	643	44,148
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	18	0	18	0	12	0	0	0	12	4	2	36
Total	—	—	0	—	—	—	—	18	—	—	—	—	—	12	4	2	36
Normal Butane For Other Uses																	
Refinery	43	9	52	148	449	25	182	804	94	276	403	6	13	792	116	301	2,065
Bulk Terminal	—	—	170	—	—	—	—	1,543	—	—	—	—	—	9,733	1	441	11,888
Pipeline	—	—	99	—	—	—	—	1,191	—	—	—	—	—	1,161	64	0	2,515
Natural Gas Processing Plant	15	3	18	0	31	11	151	193	400	886	86	22	82	1,476	49	15	1,751
Total	—	—	339	—	—	—	—	3,731	—	—	—	—	—	13,162	230	757	18,219
Isobutane																	
Refinery	1	0	1	31	219	26	151	427	50	179	399	12	9	649	52	37	1,166
Bulk Terminal	—	—	76	—	—	—	—	1,132	—	—	—	—	—	5,439	0	196	6,843
Pipeline	—	—	0	—	—	—	—	593	—	—	—	—	—	383	48	0	1,024
Natural Gas Processing Plant	2	1	3	0	25	4	47	76	69	423	53	5	14	564	1	6	650
Total	—	—	80	—	—	—	—	2,228	—	—	—	—	—	7,035	101	239	9,683
Other Hydrocarbons and Alcohol																	
Refinery	81	0	81	0	129	0	0	129	1	88	5	0	0	94	0	3	307
Total	—	—	81	—	—	—	—	129	—	—	—	—	—	94	0	3	307
Unfinished Oils																	
Refinery																	
Naphthas and Lighter	3,692	168	3,860	49	2,575	143	1,581	4,348	760	9,364	5,807	187	110	16,228	472	4,504	29,412
Kerosene and Lighter Gas Oils	1,593	24	1,617	0	2,264	3	574	2,841	492	6,536	2,160	25	5	9,218	490	3,367	17,533
Heavy Gas Oils	4,966	282	5,248	106	4,385	281	1,743	6,515	711	10,420	6,871	155	140	18,297	1,061	12,488	43,609
Residuum	1,776	253	2,029	2	2,970	12	1,278	4,262	313	4,492	3,177	34	0	8,016	495	5,458	20,260
Total	12,027	727	12,754	157	12,194	439	5,176	17,966	2,276	30,812	18,015	401	255	51,759	2,518	25,817	110,814

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Motor Gasoline Blending Components																	
Refinery	4,608	85	4,693	32	4,952	775	1,589	7,348	1,678	7,692	6,510	154	258	16,292	2,332	8,067	38,732
Bulk Terminal	—	—	14	—	—	—	—	105	—	—	—	—	—	773	0	273	1,165
Pipeline	—	—	0	—	—	—	—	28	—	—	—	—	—	17	0	0	45
Total	—	—	4,707	—	—	—	—	7,481	—	—	—	—	—	17,082	2,332	8,340	39,942
Aviation Gasoline Blending Components																	
Refinery	13	0	13	0	58	0	5	63	0	21	195	0	0	216	0	46	338
Total	—	—	13	—	—	—	—	63	—	—	—	—	—	216	0	46	338
Total Finished Motor Gasoline																	
Refinery	4,802	245	5,047	98	6,104	1,383	2,724	10,309	2,401	8,220	4,616	743	247	16,227	2,848	7,663	42,094
Bulk Terminal	—	—	37,662	—	—	—	—	30,009	—	—	—	—	—	10,998	1,758	11,433	91,860
Pipeline	—	—	14,007	—	—	—	—	15,351	—	—	—	—	—	18,263	1,501	2,440	51,562
Natural Gas Processing Plant	9	0	9	0	0	0	0	0	0	0	0	0	0	0	13	0	22
Total	—	—	56,725	—	—	—	—	55,669	—	—	—	—	—	45,488	6,120	21,536	185,538
Finished Leaded Motor Gasoline																	
Refinery	1,871	125	1,996	38	2,747	793	1,704	5,282	1,258	3,680	2,170	440	154	7,702	1,842	3,343	20,165
Bulk Terminal	—	—	17,488	—	—	—	—	15,954	—	—	—	—	—	5,618	1,092	5,320	45,472
Pipeline	—	—	7,695	—	—	—	—	8,020	—	—	—	—	—	8,777	970	1,160	26,622
Natural Gas Processing Plant	4	0	4	0	0	0	0	0	0	0	0	0	0	0	9	0	13
Total	—	—	27,183	—	—	—	—	29,256	—	—	—	—	—	22,097	3,913	9,823	92,272
Finished Unleaded Motor Gasoline																	
Refinery	2,931	120	3,051	60	3,357	590	1,020	5,027	1,143	4,540	2,446	303	93	8,525	1,006	4,320	21,929
Bulk Terminal	—	—	20,174	—	—	—	—	14,055	—	—	—	—	—	5,380	666	6,113	46,388
Pipeline	—	—	6,312	—	—	—	—	7,331	—	—	—	—	—	9,486	531	1,280	24,940
Natural Gas Processing Plant	5	0	5	0	0	0	0	0	0	0	0	0	0	0	4	0	9
Total	—	—	29,542	—	—	—	—	26,413	—	—	—	—	—	23,391	2,207	11,713	93,266
Finished Aviation Gasoline																	
Refinery	36	0	36	0	139	0	10	149	113	320	150	0	0	583	37	227	1,032
Bulk Terminal	—	—	452	—	—	—	—	375	—	—	—	—	—	137	7	264	1,235
Pipeline	—	—	14	—	—	—	—	49	—	—	—	—	—	26	0	21	110
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	55	0	0	0	0	55	0	0	55
Total	—	—	502	—	—	—	—	573	—	—	—	—	—	801	44	512	2,432

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Naphtha-Type Jet Fuel																	
Refinery	357	31	388	0	429	96	162	687	280	719	326	145	144	1,614	190	607	3,486
Bulk Terminal	—	—	296	—	—	—	—	614	—	—	—	—	—	206	15	469	1,600
Pipeline	—	—	119	—	—	—	—	172	—	—	—	—	—	436	49	458	1,234
Total	—	—	803	—	—	—	—	1,473	—	—	—	—	—	2,256	254	1,534	6,320
Kerosene-Type Jet Fuel																	
Refinery	1,112	0	1,112	29	1,110	128	54	1,321	257	2,498	2,114	5	52	4,926	248	3,060	10,667
Bulk Terminal	—	—	3,089	—	—	—	—	2,888	—	—	—	—	—	1,002	90	1,434	8,503
Pipeline	—	—	2,953	—	—	—	—	2,360	—	—	—	—	—	4,101	124	547	10,085
Total	—	—	7,154	—	—	—	—	6,569	—	—	—	—	—	10,029	462	5,041	29,255
Kerosene																	
Refinery	186	61	247	0	407	34	245	686	62	699	574	34	44	1,413	13	182	2,541
Bulk Terminal	—	—	2,455	—	—	—	—	633	—	—	—	—	—	340	28	69	3,525
Pipeline	—	—	379	—	—	—	—	203	—	—	—	—	—	858	0	0	1,440
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	3	0	0	0	1	4	0	0	4
Total	—	—	3,081	—	—	—	—	1,522	—	—	—	—	—	2,615	41	251	7,510
Distillate Fuel Oils																	
Refinery	4,424	298	4,722	47	5,454	1,527	2,744	9,772	1,037	8,170	3,049	679	202	13,137	1,915	4,907	34,453
Bulk Terminal	—	—	30,776	—	—	—	—	18,201	—	—	—	—	—	4,134	1,046	4,851	59,008
Pipeline	—	—	7,897	—	—	—	—	9,173	—	—	—	—	—	7,413	457	1,057	25,997
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0	2
Total	—	—	43,395	—	—	—	—	37,146	—	—	—	—	—	24,686	3,418	10,815	119,460
Residual Fuel Oils																	
Refinery	2,181	97	2,278	12	1,651	220	164	2,047	344	4,927	2,033	180	46	7,530	412	6,765	19,032
Bulk Terminal	—	—	18,692	—	—	—	—	1,577	—	—	—	—	—	4,229	0	1,761	26,259
Pipeline	—	—	0	—	—	—	—	0	—	—	—	—	—	1	0	138	139
Total	—	—	20,970	—	—	—	—	3,624	—	—	—	—	—	11,760	412	8,664	45,430
Naphtha < 400 Deg. Petro. Feedstock																	
Refinery	136	0	136	0	78	0	58	136	114	683	307	58	0	1,162	0	131	1,565
Total	136	0	136	0	78	0	58	136	114	683	307	58	0	1,162	0	131	1,565
Other Oils > 400 Deg. Petro. Feedstock																	
Refinery	3	0	3	0	18	0	0	18	157	904	295	0	0	1,356	3	392	1,772
Total	3	0	3	0	18	0	0	18	157	904	295	0	0	1,356	3	392	1,772

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, January 1984 (Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Special Naphthas																	
Refinery	105	58	163	0	216	0	139	355	18	1,220	48	163	0	1,449	6	178	2,151
Bulk Terminal	—	—	590	—	—	—	—	145	—	—	—	—	—	100	0	28	863
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	57	0	0	0	0	57	0	0	57
Total	—	—	753	—	—	—	—	500	—	—	—	—	—	1,606	6	206	3,071
Lubricants																	
Refinery	1,171	1,020	2,191	0	754	0	271	1,025	28	3,090	1,217	530	0	4,865	87	507	8,675
Bulk Terminal	—	—	1,268	—	—	—	—	1,162	—	—	—	—	—	276	142	823	3,671
Total	—	—	3,459	—	—	—	—	2,187	—	—	—	—	—	5,141	229	1,330	12,346
Waxes																	
Refinery	20	122	142	0	20	0	37	57	16	211	130	71	0	428	0	58	685
Total	—	—	142	—	—	—	—	57	—	—	—	—	—	428	0	58	685
Petroleum Coke																	
Refinery	807	0	807	0	403	500	139	1,042	0	382	972	185	0	1,539	131	2,116	5,635
Total	807	0	807	0	403	500	139	1,042	0	382	972	185	0	1,539	131	2,116	5,635
Asphalt and Road Oil																	
Refinery	1,420	29	1,449	361	3,235	1,821	805	6,222	840	353	1,055	828	272	3,348	1,563	1,546	14,128
Bulk Terminal	—	—	2,796	—	—	—	—	3,438	—	—	—	—	—	479	47	174	6,934
Total	—	—	4,245	—	—	—	—	9,660	—	—	—	—	—	3,827	1,610	1,720	21,062
Miscellaneous Products																	
Refinery	152	28	180	1	135	11	22	169	63	466	294	44	0	867	5	123	1,344
Bulk Terminal	—	—	155	—	—	—	—	24	—	—	—	—	—	38	0	80	297
Pipeline	—	—	0	—	—	—	—	57	—	—	—	—	—	276	0	13	346
Natural Gas Processing Plant	0	0	0	0	2	0	0	2	9	1	0	2	0	12	2	0	16
Total	—	—	335	—	—	—	—	252	—	—	—	—	—	1,193	7	216	2,003
Total Stocks, All Oils	—	—	178,832	—	—	—	—	251,314	—	—	—	—	—	791,954	32,563	175,384	1,430,047

[1] Includes 33,879 thousand barrels of domestic crude oil.
Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable.

Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge between PAD Districts, January 1984
(Thousand Barrels)

Commodity	From I to			From II to				From III to				From IV to			From V to			
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	0	0	0	0	386	1,807	0	0	0	0	0	3,475	1,251	17,172	0
Petroleum Products	8,034	208	0	3,037	5,545	2,354	102	83,153	23,863	0	1,896	1,504	604	986	242	0	66	0
Pentanes Plus	0	0	0	0	249	0	0	0	511	0	0	88	87	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	962	2,908	318	0	3,233	7,794	0	0	706	517	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	102	288	99	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	315	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,600	134	0	1,313	1,589	1,208	0	43,239	9,291	0	1,130	403	0	705	0	0	0	0
Finished Leaded Motor Gasoline	2,944	0	0	473	835	597	0	17,087	4,706	0	598	255	0	440	0	0	0	0
Finished Unleaded Motor Gasoline	2,656	134	0	840	754	611	0	26,152	4,585	0	532	148	0	265	0	0	0	0
Finished Aviation Gasoline	0	0	0	10	0	0	0	70	88	0	0	94	0	0	0	0	0	0
Naphtha-Type Jet Fuel	21	0	0	0	96	0	0	541	0	0	299	3	0	74	0	0	0	0
Kerosene-Type Jet Fuel	432	0	0	135	54	682	0	9,227	2,863	0	138	0	0	32	0	0	0	0
Kerosene	107	0	0	0	0	0	0	1,073	25	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,801	0	0	364	618	146	0	22,903	2,762	0	319	210	0	175	242	0	0	0
Residual Fuel Oil	1	0	0	144	0	0	0	996	63	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	196	88	0	0	0	0	0	0	0	0	0
Lubricants	0	66	0	28	11	0	0	508	179	0	10	0	0	0	0	0	66	0
Waxes	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	37	84	0	0	0	0	0	0	0	0	0
Miscellaneous Products	72	8	0	81	20	0	0	512	16	0	0	0	0	0	0	0	0	0
Total All Products	8,034	208	0	3,037	5,545	2,354	102	83,539	25,670	0	1,896	1,504	604	986	3,717	1,251	17,238	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, January 1984
(Thousand Barrels)

Commodity	From I to		From II to			From III to				From IV to			From V to	
	II	III	I	III	IV	I	II	IV	V	II	III	V	III	IV
Pentanes Plus	0	0	0	249	0	0	511	0	0	88	87	0	0	0
Liquefied Petroleum Gases	0	0	962	2,908	318	2,910	7,794	0	0	706	517	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	3,486	0	1,035	1,565	1,208	33,671	8,811	0	1,130	403	0	705	0	0
Finished Leaded Motor Gasoline	1,784	0	351	811	597	13,713	4,521	0	598	255	0	440	0	0
Finished Unleaded Motor Gasoline	1,702	0	684	754	611	19,958	4,290	0	532	148	0	265	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	68	0	0	94	0	0	0	0
Naphtha-Type Jet Fuel	0	0	0	96	0	358	0	0	299	3	0	74	0	0
Kerosene-Type Jet Fuel	289	0	111	54	682	6,970	2,416	0	138	0	0	32	0	0
Kerosene	92	0	0	0	0	872	25	0	0	0	0	0	0	0
Distillate Fuel Oil	1,333	0	302	610	146	18,265	2,422	0	294	210	0	175	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	30	0	0	0	0	0	0	0	0	0	0	0
Total	5,200	0	2,440	5,482	2,354	63,046	22,047	0	1,861	1,504	604	986	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge between PAD Districts, January 1984
(Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	386	0	386	0	1,807	0	3,475	1,251	17,172
Petroleum Products	2,834	208	0	597	63	102	20,107	657	4,316	15,134	1,816	35	242	0	66
Liquefied Petroleum Gases	0	0	0	0	0	0	323	0	0	323	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	102	288	0	288	0	99	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	315	0	0	315	0	0	0	0	0
Finished Motor Gasoline	2,114	134	0	278	24	0	9,568	101	537	8,930	480	0	0	0	0
Finished Leaded Motor Gasoline	1,160	0	0	122	24	0	3,374	0	0	3,374	185	0	0	0	0
Finished Unleaded Motor Gasoline	954	134	0	156	0	0	6,194	101	537	5,556	295	0	0	0	0
Finished Aviation Gasoline	0	0	0	10	0	0	70	0	8	62	20	0	0	0	0
Naphtha-Type Jet Fuel	21	0	0	0	0	0	183	0	0	183	0	0	0	0	0
Kerosene-Type Jet Fuel	143	0	0	24	0	0	2,257	0	460	1,797	447	0	0	0	0
Kerosene	15	0	0	0	0	0	201	0	73	128	0	0	0	0	0
Distillate Fuel Oil	468	0	0	62	8	0	4,638	497	1,778	2,363	340	25	242	0	0
Residual Fuel Oil	1	0	0	144	0	0	996	59	186	751	63	0	0	0	0
Naphtha and Other Oils for Petro. Feed. Use	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	196	0	168	28	88	0	0	0	0
Lubricants	0	66	0	28	11	0	508	0	412	96	179	10	0	0	66
Waxes	0	0	0	0	0	0	6	0	6	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	37	0	4	33	84	0	0	0	0
Miscellaneous Products	72	8	0	51	20	0	512	0	396	116	16	0	0	0	0
Total	2,834	208	0	597	63	102	20,493	657	4,702	15,134	3,623	35	3,717	1,251	17,238

Source: See Explanatory Notes on Data Collection and Estimation.

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			PAD District V		
	Receipts into PADD I	Shipments from PADD I	Net Receipts PADD I	Receipts into PADD II	Shipments from PADD II	Net Receipts PADD II	Receipts into PADD III	Shipments from PADD III	Net Receipts PADD III	Receipts into PADD IV	Shipments from PADD VI	Net Receipts PADD IV	Receipts into PADD V	Shipments from PADD V	Net Receipts PADD V
Crude Oil (Tanker and Barge only)	3,861	0	3,861	3,058	0	3,058	17,172	2,193	14,979	0	0	0	0	21,898	-21,898
Petroleum Products	86,432	8,242	78,190	33,401	11,038	22,363	6,423	108,912	-102,489	2,354	3,094	-740	2,984	308	2,676
Pentanes Plus	0	0	0	599	249	350	336	511	-175	0	175	-175	0	0	0
Liquefied Petroleum Gases	4,195	0	4,195	8,500	4,188	4,312	3,425	11,027	-7,602	318	1,223	-905	0	0	0
Unfinished Oils	288	0	288	99	102	-3	0	387	-387	0	0	0	102	0	102
Motor Gasoline Blending Components	315	0	315	0	0	0	0	315	-315	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	44,552	5,734	38,818	15,294	4,110	11,184	1,723	53,660	-51,937	1,208	1,108	100	1,835	0	1,835
Finished Leaded Motor Gasoline	17,560	2,944	14,616	7,905	1,905	6,000	835	22,391	-21,556	597	695	-98	1,038	0	1,038
Finished Unleaded Motor Gasoline	26,992	2,790	24,202	7,389	2,205	5,184	888	31,269	-30,381	611	413	198	797	0	797
Finished Aviation Gasoline	80	0	80	182	10	172	0	158	-158	0	94	-94	0	0	0
Naphtha-Type Jet Fuel	541	21	520	24	96	-72	96	840	-744	0	77	-77	373	0	373
Kerosene-Type Jet Fuel	9,362	432	8,930	3,295	871	2,424	54	12,228	-12,174	682	32	650	170	0	170
Kerosene	1,073	107	966	132	0	132	0	1,098	-1,098	0	0	0	0	0	0
Distillate Fuel Oil	23,509	1,801	21,708	4,773	1,128	3,645	618	25,984	-25,366	146	385	-239	494	242	252
Residual Fuel Oil	1,140	1	1,139	64	144	-80	0	1,059	-1,059	0	0	0	0	0	0
Naphtha and Other Oils for Petro. Feedstock Use	9	0	9	0	0	0	0	9	-9	0	0	0	0	0	0
Special Naphthas	196	0	196	88	0	88	0	284	-284	0	0	0	0	0	0
Lubricants	536	66	470	179	39	140	143	697	-554	0	0	0	10	66	-56
Waxes	6	0	6	0	0	0	0	6	-6	0	0	0	0	0	0
Asphalt and Road Oil	37	0	37	84	0	84	0	121	-121	0	0	0	0	0	0
Miscellaneous Products	593	80	513	88	101	-13	28	528	-500	0	0	0	0	0	0
Total All Products	90,293	8,242	82,051	36,459	11,038	25,421	23,595	111,105	-87,510	2,354	3,094	-740	2,984	22,206	-19,222

Source: See Explanatory Notes on Data Collection and Estimation.

Table 25. Production of Residual Fuel Oil by Sulfur Content, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil	4,422	184	4,606	67	1,947	-297	450	2,167	660	7,570	3,240	275	75	11,820	305	10,634	29,532
0.00 to 0.30% Sulfur	646	57	703	0	131	0	87	218	5	388	262	64	8	727	69	440	2,157
0.31 to 1.00% Sulfur	2,709	0	2,709	0	598	0	109	707	428	1,913	847	129	0	3,317	105	3,859	10,697
Greater Than 1.00% Sulfur	1,067	127	1,194	67	1,218	-297	254	1,242	227	5,269	2,131	82	67	7,776	131	6,335	16,678

Source: See Explanatory Notes on Data Collection and Estimation.

Table 26. Stocks of Residual Fuel Oil by Sulfur Content, January 1984 (Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appala-chian #1	Total	Appala-chian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Residual Fuel Oil -- 0.00 to 0.30% Sulfur																	
Refinery	363	40	403	0	163	0	35	198	36	181	126	6	2	351	101	322	1,375
Bulk Terminal	—	—	5,558	—	—	—	—	11	—	—	—	—	—	58	0	20	5,647
Total	—	—	5,961	—	—	—	—	209	—	—	—	—	—	409	101	342	7,022
Residual Fuel Oil -- 0.31 to 1.00% Sulfur																	
Refinery	1,226	6	1,232	6	614	0	40	660	104	1,393	787	123	0	2,407	83	1,997	6,379
Bulk Terminal	—	—	5,701	—	—	—	—	513	—	—	—	—	—	2,439	0	590	9,243
Total	—	—	6,933	—	—	—	—	1,173	—	—	—	—	—	4,846	83	2,587	15,622
Residual Fuel Oil -- Greater than 1.00% Sulfur																	
Refinery	592	51	643	6	874	220	89	1,189	204	3,353	1,120	51	44	4,772	228	4,446	11,278
Bulk Terminal	—	—	7,433	—	—	—	—	1,053	—	—	—	—	—	1,732	0	1,151	11,369
Total	—	—	8,076	—	—	—	—	2,242	—	—	—	—	—	6,504	228	5,597	22,647

Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable

Table 27. Movements of Residual Fuel Oil by Tanker and Barge between PAD Districts, By Sulfur Content, January 1984 (Thousand Barrels)

Commodity	From I to			From II to			From III to						From V to		
	II	III	V	I	III	V	I	New Eng	Cent Atl	Low Atl	II	V	I	II	III
Residual Fuel Oil	1	0	0	144	0	0	996	59	186	751	63	0	0	0	0
0.00 to 0.30% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.31 to 1.00% Sulfur	1	0	0	0	0	0	643	59	186	398	63	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	144	0	0	353	0	0	353	0	0	0	0	0

Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, January 1984
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
Arab OPEC				
Algeria	3,463	136	0	3,598
Iraq	0	0	0	0
Kuwait	0	0	0	0
Libya	0	0	0	0
Qatar	0	0	0	0
Saudi Arabia	499	0	0	499
United Arab Emirates	336	0	0	336
Subtotal Arab OPEC	4,299	136	0	4,434
Other OPEC				
Ecuador	183	0	117	301
Gabon	0	0	0	0
Indonesia	(s)	117	104	222
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	3,308	347	2,962	6,617
Subtotal Other OPEC	3,492	464	3,184	7,140
Other				
Angola	0	0	0	0
Australia	254	64	3	321
Bahamas	491	0	0	491
Bolivia	0	0	0	0
Brazil	343	5	0	349
Brunei	0	0	0	0
Canada	152	353	279	784
Congo	177	0	0	177
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	119	0	119
Liberia	231	0	737	968
Malaysia	0	0	0	0
Mexico	361	0	12	373
Netherlands	0	0	0	0
Netherlands Antilles	1,228	270	4,801	6,299
Norway	0	0	0	0
Oman	382	0	0	382
People's Republic of China	0	0	0	0
Peru	0	240	981	1,221
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	364	0	0	364
Syria	0	0	0	0
Trinidad	0	0	244	244
Tunisia	0	0	0	0
United Kingdom	0	0	128	128
Virgin Islands	2,885	1,734	1,343	5,962
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Other Western Hemisphere	449	530	0	979
Other Eastern Hemisphere	1,135	977	36	2,149
Subtotal Other	8,452	4,292	8,565	21,309
Total Imports	16,242	4,892	11,748	32,883

(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, January 1984 (Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	**13,814**	**4,450**	**11,515**	**29,779**
Connecticut	0	194	0	194
Delaware	183	122	179	484
Florida	80	362	1,033	1,476
Georgia	0	0	272	272
Maine	0	0	701	701
Maryland	351	299	283	933
Massachusetts	589	788	2,591	3,968
New Jersey	2,188	269	1,588	4,045
New York	9,771	1,299	3,074	14,145
North Carolina	83	0	132	215
Pennsylvania	535	964	283	1,782
Rhode Island	0	153	134	287
South Carolina	0	0	138	138
Vermont	32	0	0	32
Virginia	0	0	1,106	1,106
PAD District II	**92**	**159**	**57**	**309**
Illinois	0	94	0	94
Michigan	90	65	42	197
Minnesota	0	0	10	10
North Dakota	2	0	5	8
PAD District III	**2,331**	**34**	**0**	**2,366**
Alabama	360	0	0	360
Louisiana	0	34	0	34
Texas	1,972	0	0	1,972
PAD District IV	**4**	**0**	**20**	**24**
Montana	4	0	20	24
PAD District V	**1**	**248**	**156**	**406**
California	1	0	12	14
Hawaii	(s)	248	144	392
All PAD Districts	**16,242**	**4,892**	**11,748**	**32,883**

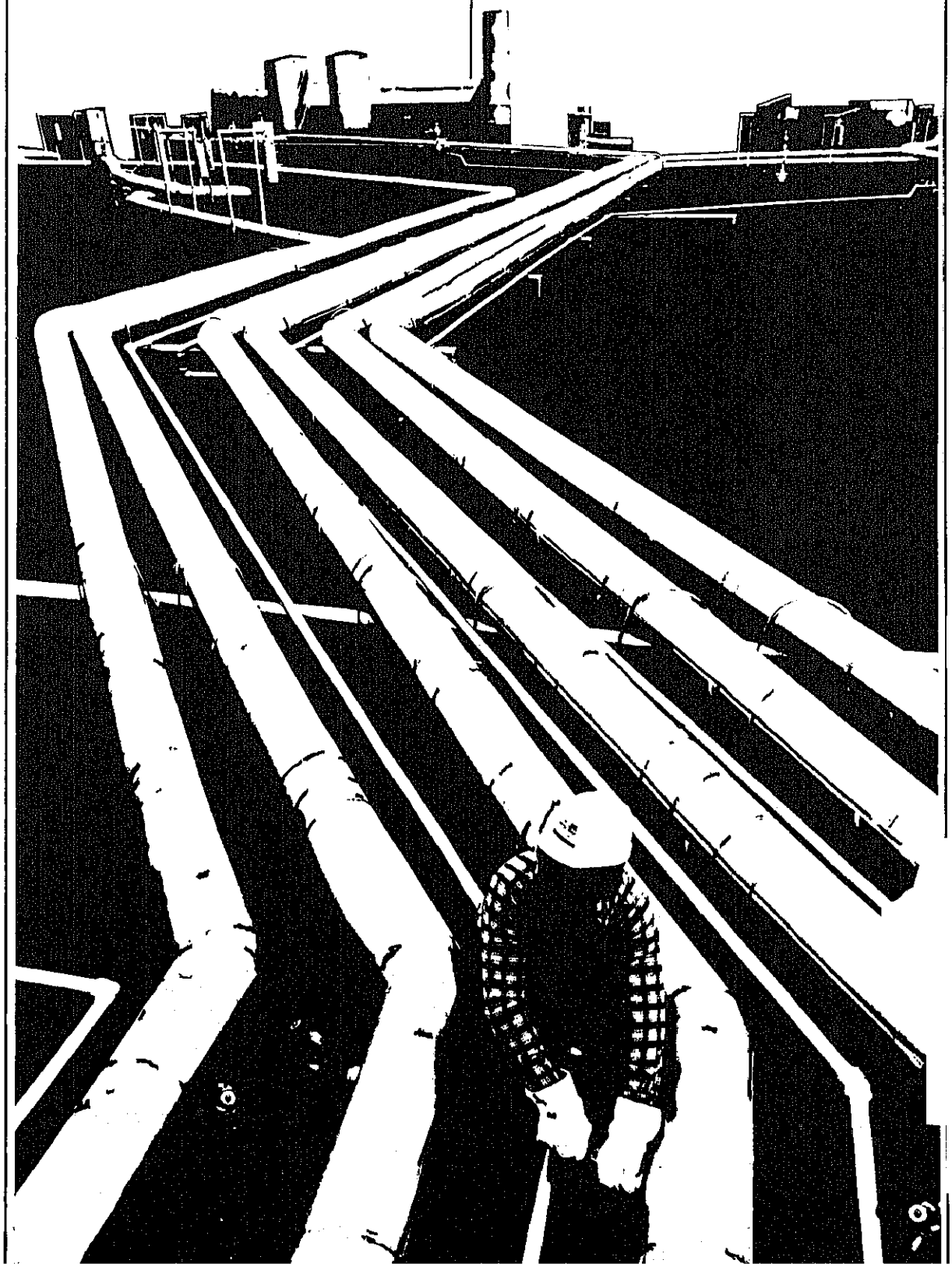
(s) = Less than 500 barrels.
Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of Natural Gas Liquids by PAD District, December 1983 (New Basis)
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III						PAD Dist. IV	PAD Dist. V	United States
	East Coast	Appalachian #1	Total	Appalachian #2	Ind., Ill., Ky.	Minn., Wisc., Daks.	Okla., Kans., Mo.	Total	Texas Inland	Texas Gulf Coast	La. Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Pentanes Plus																	
Refinery	17	0	17	0	57	100	125	282	46	205	160	75	15	501	12	14	826
Bulk Terminal	—	—	17	—	—	—	—	1,789	—	—	—	—	—	2,783	2	22	4,613
Pipeline	—	—	0	—	—	—	—	302	—	—	—	—	—	1,228	79	5	1,614
Natural Gas Processing Plant	4	14	18	0	42	18	432	492	393	424	227	30	23	1,097	91	14	1,712
Total	—	—	52	—	—	—	—	2,865	—	—	—	—	—	5,609	184	55	8,765
Liquefied Petroleum Gases																	
Refinery	705	19	724	241	1,999	168	631	3,039	226	420	2,063	28	29	2,766	263	602	7,394
Bulk Terminal	—	—	1,777	—	—	—	—	21,296	—	—	—	—	—	53,965	90	1,947	79,075
Pipeline	—	—	1,928	—	—	—	—	6,630	—	—	—	—	—	5,681	432	0	14,671
Natural Gas Processing Plant	160	35	195	0	162	40	807	1,009	976	3,390	587	41	202	5,196	126	91	6,617
Total	—	—	4,624	—	—	—	—	31,974	—	—	—	—	—	67,608	911	2,640	107,757
Ethane																	
Refinery	1	0	1	0	7	16	0	23	0	5	0	0	0	5	0	0	29
Bulk Terminal	—	—	0	—	—	—	—	3,588	—	—	—	—	—	12,788	0	0	16,376
Pipeline	—	—	0	—	—	—	—	1,505	—	—	—	—	—	1,871	140	0	3,516
Natural Gas Processing Plant	0	0	0	0	26	0	201	227	74	1,119	13	0	23	1,229	2	0	1,458
Total	—	—	1	—	—	—	—	5,343	—	—	—	—	—	15,893	142	0	21,379
Propane for Petrochemical Feedstock Use																	
Refinery	48	0	48	0	89	0	0	89	3	5	83	0	0	91	0	0	228
Total	—	—	48	—	—	—	—	89	—	—	—	—	—	91	0	0	228
Propane For Other Uses																	
Refinery	608	3	611	2	1,127	30	132	1,291	48	67	1,033	5	5	1,158	110	213	3,383
Bulk Terminal	—	—	1,510	—	—	—	—	14,397	—	—	—	—	—	24,761	90	611	41,369
Pipeline	—	—	1,794	—	—	—	—	3,403	—	—	—	—	—	2,351	180	0	7,728
Natural Gas Processing Plant	149	32	181	0	81	22	418	521	511	667	402	17	124	1,721	76	73	2,572
Total	—	—	4,096	—	—	—	—	19,612	—	—	—	—	—	29,991	456	897	55,052
Normal Butane For Petro. Feed Use																	
Refinery	0	0	0	0	0	25	0	25	0	68	0	1	0	69	5	2	101
Total	—	—	0	—	—	—	—	25	—	—	—	—	—	69	5	2	101
Normal Butane For Other Uses																	
Refinery	47	16	63	217	588	60	315	1,180	106	161	316	10	18	611	97	344	2,295
Bulk Terminal	—	—	175	—	—	—	—	2,114	—	—	—	—	—	10,322	0	1,080	13,691
Pipeline	—	—	134	—	—	—	—	1,155	—	—	—	—	—	1,060	64	0	2,413
Natural Gas Processing Plant	9	2	11	0	30	14	134	178	313	1,161	105	17	45	1,641	46	13	1,889
Total	—	—	383	—	—	—	—	4,627	—	—	—	—	—	13,634	207	1,437	20,288
Isobutane																	
Refinery	1	0	1	22	188	37	184	431	69	114	631	12	6	832	51	43	1,358
Bulk Terminal	—	—	92	—	—	—	—	1,197	—	—	—	—	—	6,094	0	256	7,639
Pipeline	—	—	0	—	—	—	—	567	—	—	—	—	—	399	48	0	1,014
Natural Gas Processing Plant	2	1	3	0	25	4	54	83	78	443	67	7	10	605	2	5	698
Total	—	—	96	—	—	—	—	2,278	—	—	—	—	—	7,930	101	304	10,709

Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable.

Glossary



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; CH-(CH)n-OH. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr 60F/60F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels Per Calendar Day. See ***Operable Capacity.***

Barrels Per Stream Day. See ***Operable Capacity.***

Bi-Metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g. platinum, rhenium).

Butane. A normally gaseous straight-chain or branch-chain hydrocarbon. (C4H10). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is covered by ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane. A normally gaseous branch-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. It is extracted from natural gas or refinery gas streams.

Normal Butane. A normally gaseous straight-chain hydrocarbon, (C4H10). It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. It is extracted from natural gas or refinery gas streams.

Butylene. An olefinic hydrocarbon, (C4H8), recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g. distillate fuel oil and residual oil) and unfinished oils (e.g. naphthas, reformer feeds and heavy gas oils) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprise of a metal and a non-metal (e.g. platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. In-

cludes lignite, bituminous coal, and anthracite which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude oil (residual) oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

Domestic. Crude oil produced in the United States or from its "outer continental shelf" as defined in 43 U.S.C. 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Delayed Coking. A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous straight-chain hydrocarbon, (C_2H_6). It is a colorless paraffinic gas that boils at a temperature of -127.48 degrees F. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C_2H_4), recovered from refinery processes or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasohol. See *Motor Gasoline (Finished).*

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Idle Capacity. The component of operable capacity that is not in operation and not under active repairs, but capable of being placed in operation within 30 days; and capacity not in operation but under active repairs that can be completed within 90 days.

Imported Crude Oil Burned As Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. Imported

crude oil burned as fuel includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and shale oil.

Isobutane. See ***Butane.***

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butane into isobutane, an alyklation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D3699: No. 1-K and No. 2-K, and all grades of keresene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, and a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specification MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; it is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and nonassociated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Ethane, Ethylene, propane, propylene, normal butane, butylene, and Isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/ or refrigeration they are retained in the liquid state. The reported categories are ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane. Excludes still gas used for chemical or rubber manufacture which is reported as a petrochemical feedstock and also excludes liquefied petroleum gases intended for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstock or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include:

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, speciality oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122-158 degrees F. at the 10-percent point to 365-374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. "Motor gasoline" includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specification of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: Ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e. products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C_5H_{12}), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Normal Butane. See ***Butane.***

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation, and not under active repairs but capable of being placed in operation within 30 days; or not in operation but under active repairs that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed in an atmospheric distillation facility during a twenty-four hour period after making allowances for the following limitations:

The capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation.

The types and grades of inputs to be processed.

The types and grades of products expected to be manufactured.

The environmental constraints associated with refinery operations.

The reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs and turnaround.

The reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline and plant condensate.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber and a variety of plastics. The categories reported are "Naphtha-Less than 400 degrees F. end-point" and "Other oils over 400 degrees F. end point."

Naphtha-Less Than 400 Degrees F. End-Point. A naphtha with an end point of less than 400 degrees F. that is intended for use as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. End-Point. Oils with an end point over 400 degrees F. that is intended for use as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5 barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst thus, deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400 F. end-point, other oils-over 400 F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufacturers finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tankfarms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous straight-chain hydrocarbon, (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees F. It is extracted from natural gas or refinery gas streams. It includes all products covered by Gas Processors Association Specifications for commercial propane and HD-5 propane and ASTM Specification D1835.

Propylene. An olefinic hydrocarbon, (C_3H_6), recovered from refinery processes or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operations which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel."

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Streams. Mixtures of unsegregated natural gas liquid components excluding those in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid-being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series pre-

dominates. Includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42-U.S. gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D1321)-60 maximum. Viscosity at 210 degrees F. in Saybolt Universal Seconds (SUS). (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.5 percent maximum. Other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D721)-0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and adjacent islands.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts:

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

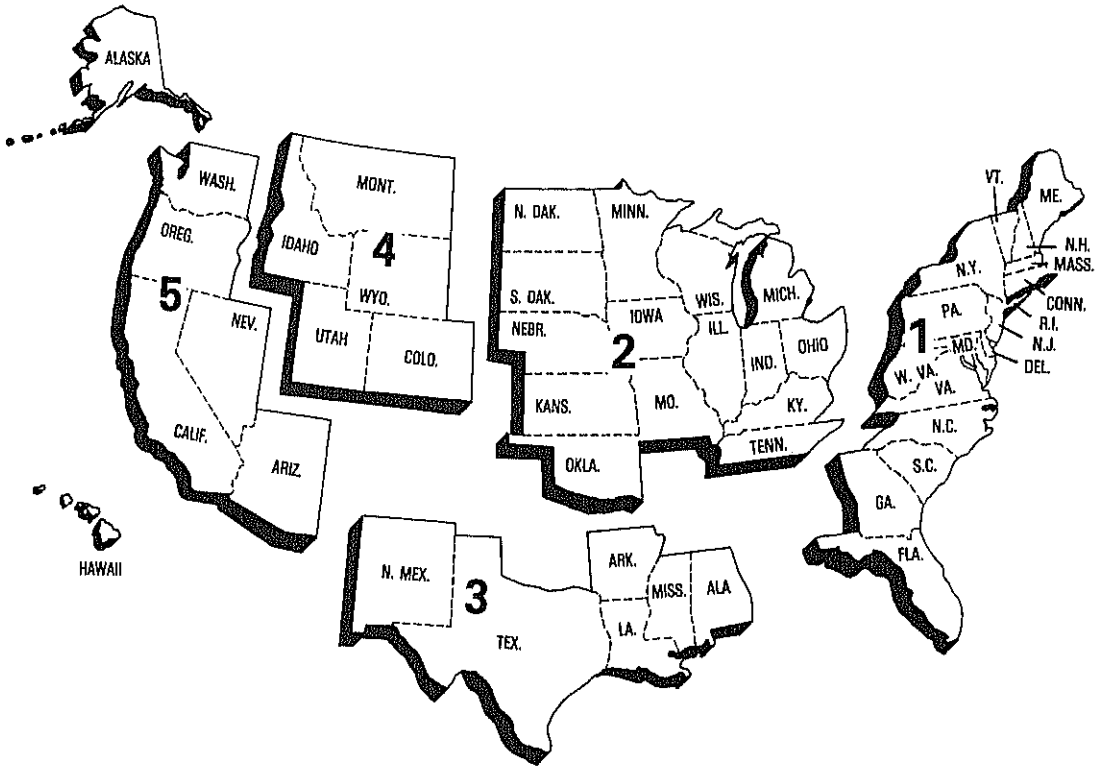
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

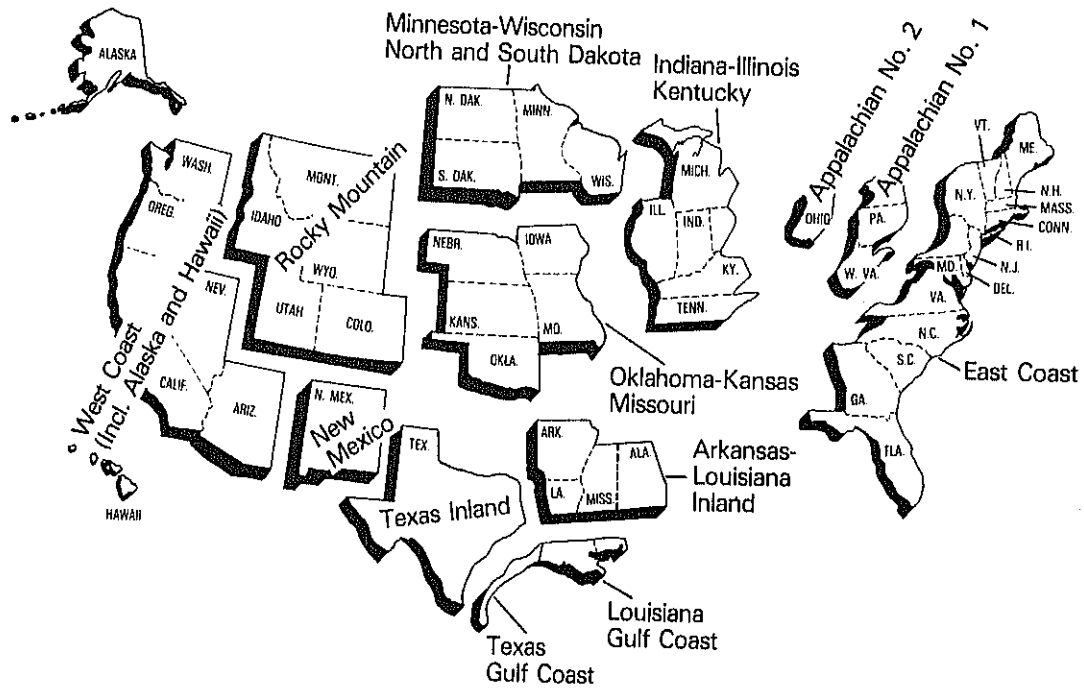
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

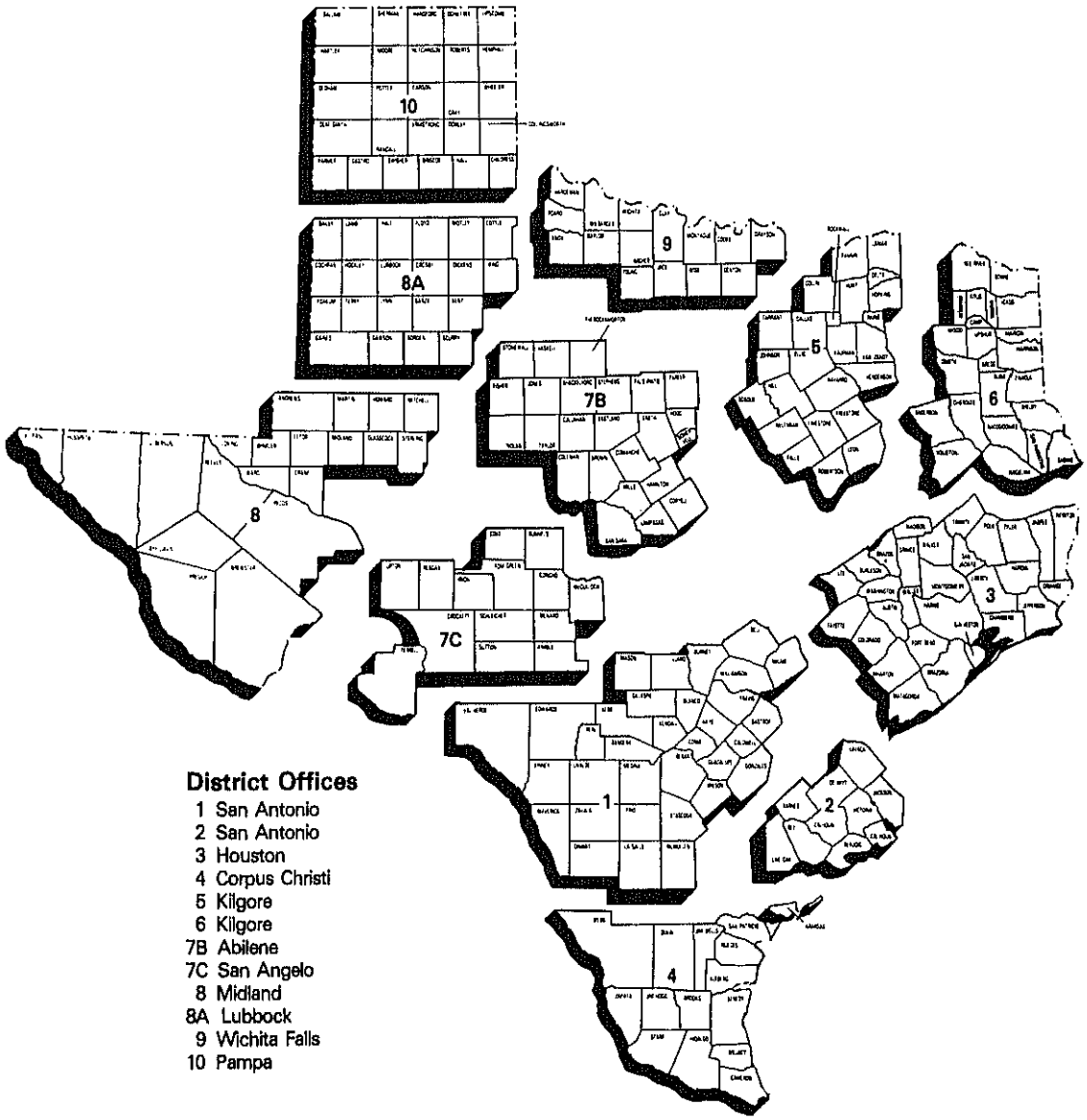
Petroleum Administration for Defense (PAD) Districts



Bureau of Mines Refining Districts



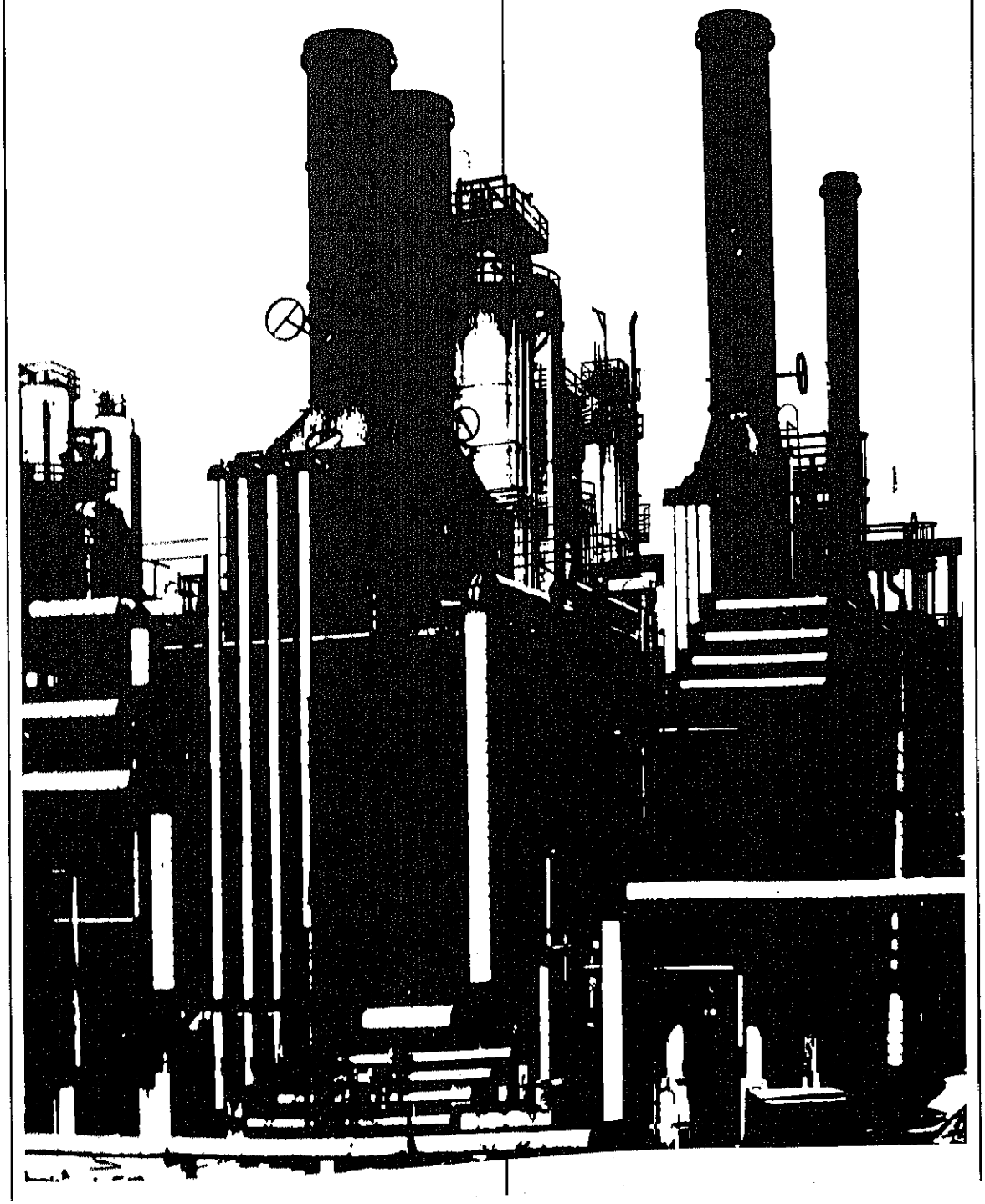
District Map Oil and Gas Division Railroad Commission of Texas



District Offices

1 San Antonio
2 San Antonio
3 Houston
4 Corpus Christi
5 Kilgore
6 Kilgore
7B Abilene
7C San Angelo
8 Midland
8A Lubbock
9 Wichita Falls
10 Pampa

Explanatory Notes



Explanatory Notes

Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-60	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-816	Monthly Natural Gas Liquids Report	EIA-64
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly* (*PSM*). A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the *PSM*. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the *PSM*. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 93.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report.*

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t, is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s}(W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 98 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1983 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and importers of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the *PSM*.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and importers of record importing crude oil and petroleum products into the United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Almanac* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frames. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1983, the ERA-60 survey had a response rate of 99.9 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases and bonded ship bunkers are published in the *PSM*.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.

2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)

3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.

2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.

3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Custom's officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oils) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501, 7505, and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Stock Withdrawal (+) or Addition (−) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (−) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery Inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign [illegible], which are obtained from refinery receipts [illegible] Form EIA-810, by refineries located in

for each product is calculated by [illegible]oduction plus refinery production, [illegible]s stock withdrawal or minus stock [illegible]rude oil losses (plus net receipts [illegible]n a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on Form EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-810, *Monthly Refinery Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1 - 1.3.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an *average range* that includes seasonal variation determined from a longer time period. The

average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (On April 1 and October 1), by basing the *average ranges* on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the *average range* is twice this standard error.

The upper curve of the *average range* is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817, *Monthly Tanker and Barge Movement Report*, and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (−), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

• Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

• Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

• Total Crude Oil and Petroleum Products Ending Stocks appear in thousand barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

• Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (−), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

• Crude Losses and Product Supplied appear as labeled in Table 4.

• SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousand barrels in Table 1.

• Total Crude Oil Ending Stocks appear in thousand barrels in Table 2.

• Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

• Total Production is the sum of Field Production and Refinery Production in Table 4.

• Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

• Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

• Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

• Total Production is the sum of Field Production and Refinery Production in Table 4.

• Imports, Stock Withdrawal (+) or Addition (−), Exports, and Product Supplied appear as labeled in Table 4.

• Ending Stocks appear in thousand barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

• Total Production is the sum of Field Production and Refinery Production in Table 4.

• Imports, Stocks Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

• Ending stocks appear in thousand barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

• Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

• Imports, Stock Withdrawal (+) or Addition (−), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

• Ending stocks are aggregated from ending stocks in thousand barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

• Lines (1) through (3): Crude oil (including lease condensate) production for *Alaska*, *Lower 48 States*, and *Total U.S.* are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

• Line (5): *SPR Imports* are reported on Survey Form ERA-60.

• Line (12): *Total Other Sources* equals crude oil stock withdrawal (+) or addition (−) plus unaccounted for crude oil minus crude losses in Table 2.

• Line (14): Natural gas plant liquids (NGPL) *Production* equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

• Line (15): NGPL *Imports* equals the sum of the im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

• Line (16): NGPL *Stock Withdrawal (+) or Addition (−)* is equal to the sum of stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

• Line (17) equals the sum of lines (14), (15), and (16).

• Line (18): Unfinished oils and gasoline blending components *Stock Withdrawal (+) or Addition (−)* equals stock withdrawal (+) or addition (−) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

• Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

• Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

• Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

• Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

• Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

• Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

• Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

• Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (−) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

• Line (29): *Refined Products Stocks Withdrawal (+) or Addition (−)* equals the sum of stock withdrawal (+) or addition (−) for LPG and finished petroleum products in Table 2.

• Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

• Lines (31) through (35) equal the respective products supplied in Table 2.

• Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

• Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

• The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

• Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

Note 10: New Stock Basis

In January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock withdrawal calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

• Crude Oil and Petroleum Products: 1974 - 1,121; 1980 - 1,420; and 1982 - 1,462.

• Motor Gasoline: 1974 - 225; 1980 - 263; 1982 - 244 (Total) and 203 (Finished).

• Distillate Fuel Oil: 1974 - 224; 1980 - 205; and 1982 - 186.

- Residual Fuel Oil: 1974 - 75; 1980 - 91; and 1982 - 68.

- Liquefied Petroleum Gases: 1974 - 113; 1980 - 128; and 1982 - 103.

- Other Petroleum Products: 1974 - 220; 1980 - 249; and 1982 - 259.

- Stock withdrawal calculations beginning in 1975, 1981, 1983 were made using new basis stock levels.

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream, which was formerly included in "Other Petroleum Products Supply and Disposition" table in the Summary Statistics, is now reported on a component basis (ethane, propane, normal butane, isobutane and pentanes plus). Most of these stocks will now appear in the "Liquefied Petroleum Gases Supply and Disposition" table of the Summary Statistics. This change will affect stocks reported and stock withdrawals in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983 - 108

- Other Petroleum Products: 1983 - 248

Note 11: Stocks of Alaskan Crude Oil

Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock withdrawal calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

Note 12: Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.[1]

[1]Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profile of the Motor Fuel Taxation Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C: December, 1981).

Finished Motor Gasoline Product Supplied on Old and New Basis (Thousand Barrels per Day)

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA[1]	EIA Reported	API Recast	EIA Recast	FHWA[1]
Jan	6,830	7,230	7,084-7,246	6,984	6,323	6,789	6,630-6,791	6,672
Feb	7,254	7,496	7,389-7,568	7,538	6,596	6,983	6,831-7,003	6,830
Mar	7,229	7,414	7,301-7,463	7,316	6,406	6,753	6,607-6,768	6,713
Apr	7,055	7,300	7,187-7,353	7,375	6,800	7,014	6,886-7,052	6,981
May	7,213	7,429	7,313-7,475	7,428	6,729	6,954	6,823-6,984	7,044
Jun	7,191	7,483	7,350-7,516	7,441	6,657	6,966	6,824-6,991	7,049
Jul	6,902	7,241	7,105-7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426-7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016-7,262	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956-7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966-7,127	7,064	6,632	6,948	6,936	6,993
Average	7,034	7,302	7,183-7,347	7,309	6,579	6,882	6,806-6,869	6,925

[1]FHWA gasoline statistics published in their 1979 Table MF-33G, 08-06-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-33GA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,305	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	– 48	2,599	1,627	1,602	– 25	2,584
Oct.	3,251	3,217	– 34	3,085	1,629	1,612	– 17	2,523
Nov.	3,239	3,200	– 39	3,208	1,736	1,716	– 20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,834	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,528	48	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in the U.S. Petroleum Balance (Table 1). These imbalances are reported as negative product supplied in the Other Liquids section, Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 13: NGL Import/Export Algorithms

Beginning in January 1984, the Energy Information Administration (EIA) implemented changes in the reporting of natural gas liquid (NGL) supply data, moving from a nine-product slate to a five-component slate that corresponds to industry record-keeping practices. Changes could not be made to the import and export systems. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

Imports

The imports algorithm is based on information gathered from the larger importers of NGL, who were asked to provide component analyses of the products they imported during the first six months of 1983. The percentages shown in Exhibit 1 are derived from the weighted averages of the data provided by the importers.

EXHIBIT 1. ALGORITHMS FOR ALLOCATING NGL IMPORTS

PRODUCT SLATE	*Ethane*	*Propane*	*Normal butane*	*Isobutane*	*Pentanes Plus*
Natural Gasoline & Isopentane (EIA-814)					100%
Plant Condensate (EIA-814)					100%
Ethane (IM-145)	100%				
Butane (IM-145)			60%	40%	
Butane-Propane Mixtures (IM-145)		40%	35%	20%	5%
Ethane-Propane Mixtures (IM-145)	80%	20%			

Exports

The export algorithm is based on information gathered from the larger exporters of NGL, who were asked to provide component analyses of the products they exported during 1983. The percentages shown in Exhibit 2 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by PAD of exportation, due to the wide variation of components in the mixed streams.

EXHIBIT 2. ALGORITHMS FOR ALLOCATING NGL EXPORTS

		EIA Component Slate				
PRODUCT	*P.A.D.*	*Ethane*	*Propane*	*Normal Butane*	*Isobutane*	*Pentanes Plus*
Ethane	All	100%				
Propane	All		100%			
Butane	All			100%		
Mixed Streams	I, IV, V	30%	40%	60%	15%	15%
	II		25%	15%		
	III		80%	20%		

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